

Department of the Navy

Civilian Career Path Guide
Career Areas

for
Management of
Technology, Information, and Knowledge

Volume II
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Career Areas

Introduction

By now you should have reviewed Volume I, the Career Path Guide, which provided an overview of the career development process, which includes the Prepare, Assess, Validate and Evaluate phases. Volume I also gave you an overview of the career areas and job roles available to you in your career path. Hopefully you have identified a career area and job role that fits your skills and best matches your long term professional desires.

This volume gives you the detail you need to assess the competencies that may be required in your chosen career area and job role. Competencies are presented in assessment matrices that employees use as worksheets to determine areas for development. Instructions for using these matrices are provided immediately below.

Instructions

Use the assessment matrices provided here in Volume II to perform an assessment of competencies needed to fulfill a target job role (see the Career Foundational Competencies section contained in Volume I for assessment matrices geared toward those competencies). Each matrix is organized by career area. Each career area contains job roles, while each job role has multiple competencies. Select one career area and one job role within that career area to be targeted.

Important Note: *While the listed competencies may require varying levels of proficiency, not every competency requires proficiency. Choose only those competencies that are appropriate for your particular situation.*



1. Some of the sections on the matrices are for information only. Other sections require collaboration between the employee and manager. Instructions for each matrix section are provided below using the numbered figure on the next page. Keep in mind that these matrices differ slightly from the ones used for career foundational competencies. **Career Area/Job Role** contains a reference to which career area and job role the competency pertains.
2. **Competency** contains the name of the competency, numbered within the job role.
3. **Strategic Value** describes why the competency is important.
4. **Learning Objectives & Developmental Opportunities** contain the learning objectives (upper portion) and suggested developmental opportunities (lower portion) that may be useful in satisfying the learning objectives. The developmental opportunities are *suggestions* to pursue **in addition** to those activities to gain proficiency in the **Skill Topics** (explained below). This is not an exhaustive list of developmental activities. Employees and managers are encouraged to explore activities that might be useful in a given situation but which may not be listed.
5. **Current Proficiency & Required Proficiency** Circle or note the number corresponding to the current and required proficiency (or performance level) for the listed competencies. If no proficiency for a given competency is required (in other words, it is not a competency required by the individual), circle or note a zero (0).

1
Career Area: Computer and Information Systems Engineering
Job Role: Architecture and Standards

1	Competency: Architecture	2	Proficiency:	Level:	Skill Topics:
			Current: 0 1 2 3 4 Required: 0 1 2 3 4	E I J S Ex	
3	Strategic Value: To provide secure information systems that are efficient, effective, interoperable, scalable, reliable, integrated and affordable.	Learning Objectives: Understanding the operational, systems and technical views of the architecture framework endorsed by DoD, and their application in computer and information systems components.	5	7	- OMB Memo M-97-16 - C4ISR architecture framework - Process modeling - Data interchange services - Computer systems architecture - System design, including hardware components and configuration - Database management - Distributed processing - Operating Systems - Networks - Systems software - Technical standards-their role and specific standards in use and adopted by DoD and OONI - Cryptographic equipment and systems - DoD Security Architecture (MSL)
4	Developmental Opportunities: Learning: - Information Resources Management College, Managing Information Architectures and Infrastructures (all) - Information Resources Management College, Critical Information System Technologies (IE, I, J)		Gap Assessment: Required Proficiency - Current Proficiency = Gap Gap Mitigation Strategy:		
					6

The assessment scale corresponding to the numerical proficiency values are as follows:

- 0 – No proficiency in competency required
- 1 – Conceptual knowledge of the competency only, no experience
- 2 – Ability to apply competency with help
- 3 – Ability to apply competency autonomously
- 4 – Ability to help others apply competency; may be acknowledged as an expert

This section also includes a **Gap Assessment** section (6) – subtract the current proficiency from the required proficiency and place the resulting number in this section. If the number is positive, there is a deficiency in the competency and a developmental strategy is required -- the larger the number, the greater the deficiency. Next, describe the Gap Mitigation Strategy (the steps to be taken to close the identified gap) in the space provided. It is important to weigh these competencies accurately; therefore, employees and managers need to work together closely to fill out this section.

7. **Level** This section suggests the appropriate level where the competency is found. This may be different for a given situation (for example, a headquarters versus field activity). Levels include:

- E – Entry Level
- I – Intermediate Level
- J – Journey Level
- S – Senior Specialist/Supervisor/Managerial Level
- Ex – Executive/SES Level

8. ***Skill Topics*** This lists suggested topics that pertain to the competency. While not all of the skill topics may be relevant to a job role, they provide guidance as to the types of skills found in the competency and thus some of the typical developmental activities that occur as the skills are honed.

Information Management Career Area

Job Roles

The job roles in the Information Management Career Area include the following competencies:

❖ *Acquisition Oversight*

Definition: oversees the acquisition of IM/IT products and services in accordance with the IM/IT architecture and established Federal, DoD and DON acquisition policy and guidance; plans and approves acquisition policy.

1. Acquisition
2. Business Development
3. Life Cycle Management
4. Acquisition Policy Development and Implementation
5. Procurement Strategy Planning and Implementation
6. Capital Planning and Investment
7. Business Process Reengineering
8. Systems Integration
9. Information Technology, Information Management, Knowledge Management
10. Architecture
11. Operations Research
12. Program Management
13. Contracting Officer's Representative
14. Information Assurance

❖ *Asset Management*

Definition: uses tools and methods for the management of support functions for inventory, invoicing, and fixed enterprise IM/IT assets. It may also include general ledger, accounts receivable, accounts payable, Enterprise Resource Planning (ERP), and Enterprise Licensing.

1. Asset Management
2. Configuration Management
3. Business Development
4. Acquisition
5. Business Process Reengineering
6. Program Management
7. Contracting Officer's Representative
8. Information Assurance

❖ *Capital Planning/Investment*

Definition: formulates policy and financial plans for the capital and operational costs associated with the IM/IT infrastructure to include the associated appropriations and IT budget as well as the oversight of financial obligations associated with IM/IT infrastructure procurements.

1. Business/Financial Management
2. Cost Estimating and Economic Analysis
3. Acquisition
4. Business Development
5. Policy Development and Implementation
6. Information Technology, Information Management, Knowledge Management
7. Business Process Reengineering
8. Operations Research
9. Program Management
10. Contracting Officer's Representative
11. Information Assurance

❖ **Chief Information Officer**

Definition: has overall responsibility for all aspects of IM/IT in an organization. Roles and responsibilities are generally derived from the Clinger-Cohen Act of 1996. Coordinates closely with the organization's leader and his/her direct reports, in order to align enterprise information resources with the mission.

1. Policy and Organizational
2. Leadership and Managerial
3. Process/Change Management
4. Information Resources Strategy and Planning
5. IT Performance Assessment: Models and Methods
6. Project/Program Management
7. Capital Planning and Investment Assessment
8. Acquisition
9. E-Government/Electronic Business/Electronic Commerce
10. IT Security/Information Assurance
11. Technical
12. Desktop Technology Tools

❖ **Competency Management**

Definition: leverages human capital by strengthening the KM/IM/IT competencies of the enterprise. Oversees development of KM/IM/IT cognitive skills; establishes KM/IM/IT competency guidelines of the non-KM/IM/IT workforce; ensures the recruitment, retention, and training of the KM/IM/IT workforce needed to fulfill core capabilities; and, ensures the IM/IT infrastructure will support Distance Learning/Distributed Learning (DL) while expanding the use of DL technologies.

1. Human Resource Management
2. Competency Definition
3. Organizational Development
4. Distributed Learning Technologies
5. Information Technology, Information Management, Knowledge Management
6. Program Management
7. Contracting Officer's Representative

❖ eBusiness/eGovernment

Definition: develops and applies enterprise-wide e-Business and electronic government tools, policy, practices, standards and procedures; interfaces with DoD, Federal, National, and International planning and standards organizations for matters regarding e-Business/e-Government.

1. Telecommunications Systems Architecture
2. Internet Technologies
3. Information Assurance
4. Business Process Reengineering
5. Policy Assessment
6. Integrated Network Management
7. Standards
8. Electronic Data Interchange
9. Systems Integration
10. Computer Systems Architecture
11. Software Development
12. Program Management
13. Contracting Officer's Representative

❖ Learning

Definition: formulates policy and requirements for building KM/IM/IT competencies in the organization's workforce, including KM/IM/IT professionals as well as the rest of the organization. For those areas requiring military expertise and/or current knowledge of military operations, designs and delivers the requisite education and training. Requires knowledge of the technology of learning, including Instructional Systems Design (ISD) and Advanced Distributed Learning (ADL).

1. Information Technology, Information Management, Knowledge Management
2. Instructional Systems Design
3. Distributed Learning Technologies
4. Learning Policy Assessment
5. Education & Training Delivery
6. Program Management
7. Contracting Officer's Representative

❖ Manpower Planning

Definition: defines staffing and competency requirements for the core KM/IM/IT workforce necessary to plan, design, manage, operate, and support the IM/IT infrastructure to include the use of military, civilian, and contractor personnel and related acquisition, competency development, and personnel management considerations.

1. Information Technology, Information Management, Knowledge Management
2. Manpower Planning and Requirements Analysis
3. Human Resource Management
4. Policy Assessment
5. Program Management
6. Contracting Officer's Representative

❖ **Performance Assessment**

Definition: uses tools, methodologies, and procedures to measure or evaluate enterprise IM/IT performance.

1. Network Monitoring
2. Performance Metrics
3. Modeling and Simulation
4. Business Process Reengineering
5. Requirements Analysis
6. Developmental Test & Evaluation
7. Integrated Verification & Validation
8. Operational Test & Evaluation
9. Operations Research
10. Program Management
11. Contracting Officer's Representative
12. Information Assurance

❖ **Process Reengineering and Change Management**

Definition: uses tools, methodologies and procedures to improve the enterprise IM/IT business processes, creating a business environment focused on teamwork and outcomes; improves organizational effectiveness, reengineering and reinventing processes, as well as adopting strategies to anticipate and manage change.

1. Business Process Reengineering
2. Business Development
3. Operations Research
4. Computer Systems Architecture
5. Information Technology, Information Management, Knowledge Management
6. Computer Aided Software Engineering
7. Software Development
8. Policy Development and Implementation
9. Organizational Development
10. Enterprise Resource Planning
11. Program Management
12. Contracting Officer's Representative
13. Information Assurance

❖ **Records Management**

Definition: plans, directs, organizes, trains, promotes, and manages activities with respect to records creation, maintenance and use to include document management.

1. Configuration Management
2. Asset Management
3. Information Technology, Information Management, Knowledge Management
4. Data Maintenance
5. Information Sciences
6. Document Management
7. Program Management
8. Contracting Officer's Representative
9. Information Assurance

❖ ***Strategic Planning***

Definition: creates and updates policy and strategic plans governing the use of information resources across the enterprise and the enterprise-wide operational capability to access, process, transport, store, protect and manage this information; establishes the benefits and justifies the planned expenditures in the IM/IT infrastructure and the required management and operational capabilities.

1. Policy/Strategic Plan Development and Implementation
2. Policy Assessment
3. Business Development
4. Business Process Reengineering
5. Business/Financial Management
6. Information Technology, Information Management, Knowledge Management
7. Program Management
8. Contracting Officer's Representative

Competencies by Job Role

The following table illustrates the breakout of competencies (along the left hand side) by job role (across the top) within this career area:

Competency:	Acquisition Oversight	Asset Management	Capital Planning and Investment	CIO	Competency Management	E-Business	Learning	Manpower Planning	Performance Assessment	Process Reengineering and Change Management	Records Management	Strategic Planning
Acquisition	●	●	●	●								
Acquisition Policy Development and Implementation	●											
Architecture	●											
Asset Management		●									●	
Business Development	●	●	●							●		●
Business Process Reengineering	●	●	●			●			●	●		●
Business/Financial Management			●									●
Capital Planning and Investment Assessment	●			●								
Competency Definition					●							
Computer Aided Software Engineering (CASE)										●		
Computer Systems Architecture						●				●		
Configuration Management		●									●	
Contracting Officers Representative (COR)	●	●	●		●	●	●	●	●	●	●	●
Cost Estimating and Economic Analysis			●									
Data Maintenance											●	
Desktop Technology Tools				●								
Developmental Test & Evaluation (DT&E)									●			
Distributed Learning Technologies					●		●					
Document Management											●	
E-Business						●						
E-Government/Electronic Business/Electronic Commerce				●								
Education & Training Delivery							●					
Enterprise Resource Planning										●		
Human Resource (HR) Management					●			●				
Information Assurance	●	●	●			●			●	●	●	

Competency:	Acquisition Oversight	Asset Management	Capital Planning and Investment	CIO	Competency Management	E-Business	Learning	Manpower Planning	Performance Assessment	Process Reengineering and Change Management	Records Management	Strategic Planning
Information Resources Strategy and Planning				•								
Information Sciences											•	
Information Technology, Information Management, Knowledge Management	•		•		•		•	•		•	•	•
Instructional Systems Design (ISD)							•					
Integrated Network Management						•						
Integrated Verification & Validation (IV&V)									•			
IT Security/Information Assurance				•								
Leadership/Managerial				•								
Learning Policy Assessment							•					
Life Cycle Management	•											
Manpower Planning and Requirements Analysis								•				
Modeling and Simulation									•			
Network Monitoring									•			
Operational Test & Evaluation (OT&E)									•			
Operations Research	•		•						•	•		
Organizational Development					•					•		
Performance Assessment Models and Methods				•								
Performance Metrics									•			
Policy and Organizational				•								
Policy Assessment						•		•				•
Policy Development and Implementation			•							•		
Policy/Strategic Plan Development and Implementation												•
Process/Change Management				•								
Procurement Strategic Planning and Execution	•											
Program Management	•	•	•		•	•	•	•	•	•	•	•
Project/Program Management				•								
Requirements Analysis									•			
Software Development						•				•		
Standards						•						

Competency:	Acquisition Oversight												
	Asset Management												
	Capital Planning and Investment												
	CIO												
	Competency Management												
	E-Business												
	Learning												
	Manpower Planning												
	Performance Assessment												
	Process Reengineering and Change Management												
	Records Management												
	Strategic Planning												
Systems Integration		●						●					
Technical						●							
Telecommunication System Architecture								●					

Job Roles by Occupational Series

The following table presents a matrix of the occupational series (on the left side) by the job roles in this career area (across the top). It is offered as general guidance to help identify where the work performed in the various job roles may be found in the federal government workforce. As such, it does not depict every situation that could occur. More detailed information on the draft classification standard for the Information Technology Group (GS-2200) can be found in Appendix B of Volume I.

	Acquisition Oversight	Asset Management	Capital Planning & Investment	Chief Information Officer	Competency Management	e-Business	Learning	Manpower Planning	Performance Assessment	Process Reengineering & Change Management	Records Management	Strategic Planning
GS-301 Misc. Admin. and Program	•	•	•	•	•	•	•	•	•	•	•	•
GS-335 Computer Clerk & Assistant		•									•	
GS-340 Program Management	•	•	•	•	•			•				•
GS-343 Management & Program Analysis	•	•	•					•	•	•		•
GS-391 Telecommunications	•	•	•	•		•			•			•
GS-392 General Telecommunications		•							•			
GS-854 Computer Engineer				•								
GS-855 Electronics Engineering	•			•								
GS-1410 Librarian											•	
GS-1411 Library Technician											•	
GS-1412 Technical Information Services											•	
GS-1515 Operations Research									•	•		
GS-1550 Computer Science	•			•								
GS-2210 IT Management Specialist ¹	•	•	•	•	•	•	•	•	•	•	•	•

¹ Formerly GS-334 Computer Specialist.

Career Area: Information Management**Job Role: Acquisition Oversight**

1	Competency: Acquisition	Proficiency:		Level:					Skill Topics:
<u>Strategic Value:</u> To ensure the organization's products and services reflect customer requirements, both cost and technical, in a competitive environment, and to ensure these requirements are met through the acquisition process.	<u>Learning Objectives:</u> Knowledge of and ability to apply Federal, DoD and DON acquisition management guidance and analytical methods to formally plan, organize, direct and control the program and project acquisition process.	Current	Required	E	I	J	S	Ex	<ul style="list-style-type: none">- Procurement processes- Acquisition documentation- Life-cycle management- Economic analysis principles- Activity-based costing- DoD, DON budget and procurement processes- BPR methodologies, metrics, tools, and techniques- Plan and budgetary document development to support requirements- Metrics and performance analysis- Acquisition, Distribution and Disposal- Federal laws and DoD, DON regulations
		0 1 2 3 4	0 1 2 3 4			X	X	X	
	<u>Developmental Opportunities:</u> Learning: <ul style="list-style-type: none">- Information Resources Management College, Information Management Planning (all)- Information Resources Management College, Information Technology Acquisition for the CIO (S, Ex)- DAU DAWIA curriculum (all)	<u>Gap Assessment:</u> _____ - _____ = _____ Required Proficiency - Current Proficiency = Gap <u>Gap Mitigation Strategy:</u>							

Career Area: Information Management**Job Role: Acquisition Oversight**

2 Competency: Business Development		Proficiency:		Level:					Skill Topics:
		Current	Required	E	I	J	S	Ex	
<u>Strategic Value:</u> <i>To sustain the structure and operations of the organization within projected cost and revenue, and to ensure requirements for planned growth and technology insertion are met with adequate capital investment resources.</i>	<u>Learning Objectives:</u> Knowledge of and ability to apply financial management, cost and revenue projections, business cases, plans, methods, practices, policies and procedures, industry trends and market surveys, justifications, approvals, determinations and findings.	0 1 2 3 4	0 1 2 3 4			X	X		- Marketing - Customer business requirements - Competitive proposal preparation and presentation - Customer service -Business case analysis
	<u>Developmental Opportunities:</u> Learning: - Information Resources Management College, Information Management Planning (all) - Information Resources Management College, Information Technology Acquisition for the CIO (S, Ex) - Managerial Accounting Course (all) - Financial management course (all)	<u>Gap Assessment:</u> <div style="text-align: center;"> _____ - _____ = _____ Required Proficiency - Current Proficiency = Gap </div> <u>Gap Mitigation Strategy:</u>							

Career Area: Information Management**Job Role: Acquisition Oversight**

3	Competency: Life Cycle Management	Proficiency:		Level:					Skill Topics:
		Current	Required	E	I	J	S	Ex	
<u>Strategic Value:</u> <i>To ensure adherence to Federal law and DOD Life Cycle regulations in the acquisition, maintenance, operation and disposal of required hardware, support services and other materials.</i>	<u>Learning Objectives:</u> Knowledge of and ability to acquire required hardware, software, support services and other materials.	0 1 2 3 4	0 1 2 3 4		X	X	X		- Project Planning - AIS Life Cycle Management
	<u>Developmental Opportunities:</u> Learning: - Information Resources Management College, Information Management Planning (all) - Information Resources Management College, Information Technology Acquisition for the CIO (S)	<u>Gap Assessment:</u> <div style="display: flex; justify-content: space-between; width: 100%;"> _____ - _____ = _____ </div> <div style="display: flex; justify-content: space-between; width: 100%;"> Required Proficiency - Current Proficiency = Gap </div>							
		<u>Gap Mitigation Strategy:</u>							

Career Area: Information Management**Job Role: Acquisition Oversight**

4	Competency: Acquisition Policy Development and Implementation	Proficiency:		Level:					Skill Topics:
		Current	Required	E	I	J	S	Ex	
<p><u>Strategic Value:</u></p> <p>To develop staff and assist in the implementation of departmental policy regarding DON, DoD and Federal Government legislative mandates (i.e., Congressional Directives, Executive Orders, and policies relating to information systems).</p>	<p><u>Learning Objectives:</u></p> <p>Knowledge of and ability to apply information management concepts, principles, practices, procedures, policies, standards and operational requirements both internal and external to the DON (e.g., at the Joint Staff level) necessary to develop or modify policy.</p>	0 1 2 3 4	0 1 2 3 4			X	X	X	<ul style="list-style-type: none"> - Commercial, Federal and Military standards - Regulatory environment - Operational procedures - Operational doctrine - Tariffs and pricing structures - Policy directives - Policy development - Migration/integration initiatives
	<p><u>Developmental Opportunities:</u></p> <p>Learning:</p> <ul style="list-style-type: none"> - Information Resources Management College, Information Management Planning (all) - Information Resources Management College, Information Technology Acquisition for the CIO (S, Ex) <p>Work-based:</p> <ul style="list-style-type: none"> - Serve in an policy organization as a staff action officer (J) 	<p><u>Gap Assessment:</u></p> <p>_____ - _____ = _____</p> <p>Required Proficiency - Current Proficiency = Gap</p> <p><u>Gap Mitigation Strategy:</u></p>							

Career Area: Information Management**Job Role: Acquisition Oversight**

5	Competency: Procurement Strategic Planning and Execution	Proficiency:					Level:					Skill Topics:					
<u>Strategic Value:</u> To provide program and acquisition planning, source selection, contract management, program management and procurement process improvement expertise to DON IM/IT programs.	<u>Learning Objectives:</u> Knowledge of and ability to provide planning for programs and acquisitions, select sources, manage contracts and programs, and apply BPR expertise.	Current					Required					E	I	J	S	Ex	- Acquisition strategy development - Risk assessment and mitigation - DoD series 5000 application - COTS/NDI assessment - RFP development - Proposal evaluation and scoring - Negotiations and strategies - Contract compliance monitoring - Claims analysis - Program management strategy and implementation - Procurement change implementation
		0	1	2	3	4	0	1	2	3	4			X	X	X	
	<u>Developmental Opportunities:</u> Learning: - Information Resources Management College, Information Management Planning (all) - Information Resources Management College, Information Technology Acquisition for the CIO (S, Ex) Work-based: - Serve as Contracting Officer's Representative (J, S)	<u>Gap Assessment:</u> _____ - _____ = _____ Required Proficiency - Current Proficiency = Gap <u>Gap Mitigation Strategy:</u>															

Career Area: Information Management**Job Role: Acquisition Oversight**

6	Competency: Capital Planning and Investment	Proficiency:	Level:	Skill Topics:
<u>Strategic Value:</u> <i>To understand the importance of Capital Planning and Investment Analysis; to decentralized IT and make each agency autonomous in the way it plans, invests in and implements IT; to provide a framework for running government with the same disciplines as private business.</i>	<u>Learning Objectives:</u> Knowledge of and ability to apply best practices; analyze cost/benefit, economics and risk; apply risk management models and methods; weigh benefits of alternative IT investments; perform capital investment analysis; perform business case analysis; integrate performance with mission and budget process; and perform investment review.	Current 0 1 2 3 4	Required 0 1 2 3 4	E I J S Ex X X
	<u>Developmental Opportunities:</u> Learning: - STAR Program (S, Ex) - DAWIA (S, Ex)	<u>Gap Assessment:</u> _____ - _____ = _____ Required Proficiency - Current Proficiency = Gap <u>Gap Mitigation Strategy:</u>		

Career Area: Information Management**Job Role: Acquisition Oversight**

7	Competency: Business Process Reengineering		Proficiency:		Level:					Skill Topics:
	Current	Required	E	I	J	S	Ex			
<u>Strategic Value:</u> <i>To ensure the organization's methods and processes support customer requirements, both cost and technical.</i>	0 1 2 3 4	0 1 2 3 4		X	X	X	X			
<u>Learning Objectives:</u> Knowledge of and ability to apply analytical methods and procedures to review and assess information management processes and procedures to support the development and enhancement of administrative processes, procedures and organizations.										
<u>Developmental Opportunities:</u> Learning: - DoD BPR Certificate Program (all) - Information Resources Management College: (all) -- Reengineering Organizational Processes -- Information Measuring Results of Organizational Performance -- Information Management Planning -- IT Capital Planning	<u>Gap Assessment:</u> _____ - _____ = _____ Required Current = Gap Proficiency Proficiency									
	<u>Gap Mitigation Strategy:</u>									

Career Area: Information Management**Job Role: Acquisition Oversight**

8 Competency: Systems Integration		Proficiency:		Level:					Skill Topics:
		Current	Required	E	I	J	S	Ex	
Strategic Value: <i>To manage the integration of subsystems into a system.</i>	Learning Objectives: Knowledge of and ability to integrate large information systems.	0 1 2 3 4	0 1 2 3 4			X	X	X	- Integration methods, tools and metrics - System interoperability - Software portability - Software scalability - System security - System testing - DoD and DON Enterprise migration strategies - Specifications and uses of embedded computers
	Developmental Opportunities: Learning: - System engineering course (I) - Attend system engineering symposia (I, J, S) - Present at system engineering symposia (J, S) - Information Resources Management College, Information Management Planning (all) - Information Resources Management College, Information Technology Acquisition for the CIO (S, Ex) Work-based: - Participate in interface design specification (I) - Participate in integration testing (I) - Management and supervisor training courses (J, S, Ex)	Gap Assessment: _____ - _____ = _____ Required Proficiency - Current Proficiency = Gap Gap Mitigation Strategy:							

Career Area: Information Management**Job Role: Acquisition Oversight**

9	Competency: Info. Technology, Info. Mgmt., Knowledge Mgmt.	Proficiency:		Level:					Skill Topics:
		Current	Required	E	I	J	S	Ex	
<u>Strategic Value:</u> <i>To ensure organization information resources are strategic assets that will provide the backbone of DON decision-making needs by utilizing information and knowledge resources most effectively.</i>	<u>Learning Objectives:</u> Knowledge of and ability to manage information, knowledge, information technology and related resources according to Federal laws and DoD, DON regulations.	0 1 2 3 4	0 1 2 3 4			X	X	X	- Information management - Information resource management - Computing and Communications - IM/IT acquisition - Information resource management regulations, policies and procedures - Knowledge Management - Leadership - Performance assessment - Capital planning and investment - Technology advances - Strategic planning - Process/change management - IM/IT architecture - Information Assurance
	<u>Developmental Opportunities:</u> Learning: - Information Resources Management College, CIO Certificate Program (J, S, Ex) - Federal CIO Council, CIO University (S, Ex)	<u>Gap Assessment:</u> <div style="display: flex; justify-content: space-between; width: 100%;"> _____ - _____ = _____ </div> <div style="display: flex; justify-content: space-between; width: 100%;"> Required Proficiency - Current Proficiency = Gap </div> <u>Gap Mitigation Strategy:</u>							

Career Area: Information Management**Job Role: Acquisition Oversight**

10	Competency: Architecture		Proficiency:		Level:					Skill Topics:
			Current	Required	E	I	J	S	Ex	
Strategic Value: <i>To provide secure information systems that are effective, interoperable, scalable, reliable, integrated and affordable.</i>	Learning Objectives: Understanding the operational, systems and technical views of the architecture framework endorsed by DoD, and their application in computer and information systems components.	0 1 2 3 4	0 1 2 3 4	X	X	X	X			- OMB Memo M-97-16 - C4ISR architecture framework - Process modeling - Data interchange services - Computer systems architecture - System design, including hardware components and configuration - Database management - Distributed processing - Operating Systems - Networks - Systems software - Technical Standards--their role and specific standards in use and adopted by DoD and DON - Cryptographic equipment and systems - DoD Security Architecture (MSL)
	Developmental Opportunities: Learning: - Information Resources Management College, Information Management Planning (all) - Information Resources Management College, Managing Information Architectures and Infrastructures (all) - Information Resources Management College, Information Technology Acquisition for the CIO (S)	Gap Assessment: <div style="text-align: center;"> _____ - _____ = _____ Required Proficiency - Current Proficiency = Gap </div> Gap Mitigation Strategy:								

Career Area: Information Management**Job Role: Acquisition Oversight**

11	Competency: Operations Research		Proficiency:		Level:					Skill Topics:
<u>Strategic Value:</u> To assist customers in information systems assessment, planning, design, modifications, and strategy development.	<u>Learning Objectives:</u> Knowledge of and ability to perform design, trade off and cost benefit analysis, and to evaluate and optimize information systems.	Current	Required	E	I	J	S	Ex	<ul style="list-style-type: none">- Modeling methods- Correlation analysis- Analysis of variance- Parameter estimation from statistical samples- Parametric and nonparametric test of significance- Principal component analysis- Monte-Carlo analysis- Analytical hierarchical process- Decision support- Bayesian inferencing- Automated statistical evaluation packages (e.g., SAS, SYSTAT, S-PLUS, SPSS, STATISTICA)- Graphical presentations/visualization- Spread sheet programs (e.g., Excel, 1-2-3)- Sampling theory	
		0 1 2 3 4	0 1 2 3 4	X	X	X	X			
	<u>Developmental Opportunities:</u> Learning: <ul style="list-style-type: none">- Attend courses in operations research (E, I)- Information Resources Management College, Information Management Planning (all)- Information Resources Management College, Information Technology Acquisition for the CIO (S)	<u>Gap Assessment:</u> _____ - _____ = _____ Required Proficiency - Current Proficiency = Gap								
		<u>Gap Mitigation Strategy:</u>								

Career Area: Information Management**Job Role: Acquisition Oversight**

12	Competency: Program Management	Proficiency:		Level:					Skill Topics:
		Current	Required	E	I	J	S	Ex	
Strategic Value: <i>To achieve the needed outcomes of a specific program and related projects by ensuring proper management, performance and administration.</i>	Learning Objectives: Knowledge of the required outcomes, functional and political environments, organizations, activities, and constraints affecting a program. Knowledge of project definition and the ability to: relate required results and costs; lead teams that include members not in one's chain of command; apply systematic thinking to develop action plans; develop approaches to satisfy requirements and resolve issues; and ensure overall project quality. A PM has the knowledge and ability to coordinate the work of assigned staff and other functional experts matrixed to support the task.	0 1 2 3 4	0 1 2 3 4			X	X	X	- Program strategic planning - Program role in organization/enterprise - Visionary leadership - Performance assessment - Project integration management - Quality management - Risk management - Financial management
	Developmental Opportunities: Learning: - Information Resources Management College: (I, J, S) --Information Management Planning --Information Technology Acquisition for the CIO --IT Project Management --IT Capital Planning - STAR Program (all) - DAWIA (all) Work-based: - Serve as Contracting Officer's Representative (J, S)	Gap Assessment: <div style="text-align: center;"> _____ - _____ = _____ Required Current Proficiency Proficiency Gap </div> Gap Mitigation Strategy:							

Career Area: Information Management**Job Role: Acquisition Oversight**

13	Competency: Contracting Officers Representative (COR)		Proficiency:		Level:					Skill Topics:
			Current	Required	E	I	J	S	Ex	
Strategic Value: <i>To ensure contractor performance and delivery is in compliance with a given contract.</i>	Learning Objectives: Knowledge of and ability to make technical decisions within the scope of the contract/task; serve as the day-to-day point of contact for contractual matters; assess the technical quality of performed work; approve deliverables for acceptance.	0 1 2 3 4	0 1 2 3 4		X	X	X			- Deliverable item review and approval - Contract types (e.g., IDIQ, cost reimbursable, time and materials, firm fixed price) - Cost reporting - Contract rates - Delivery orders - Other direct costs (ODCs) - Contract Line Items (CLINs) - Contract milestones - Life cycle management - Statements of Work (SOW) - Contract options
	Developmental Opportunities: Learning: - Information Resources Management College, Information Technology Acquisition for the CIO (S) - STAR Program (all)- DAWIA (all)	Gap Assessment: <div style="display: flex; justify-content: space-between; align-items: center;"> <div>_____</div> <div>-</div> <div>_____</div> <div>=</div> <div>_____</div> </div> <div style="display: flex; justify-content: space-between; align-items: center; margin-top: 10px;"> <div>Required Proficiency</div> <div>-</div> <div>Current Proficiency</div> <div>=</div> <div>Gap</div> </div> Gap Mitigation Strategy:								

Career Area: Information Management**Job Role: Acquisition Oversight**

14	Competency: Information Assurance		Proficiency:		Level:					Skill Topics:
	Current	Required	E	I	J	S	Ex			
<p><u>Strategic Value:</u></p> <p>To acquire, maintain and ensure the security of information systems in an effective, interoperable, scalable, reliable, integrated and affordable fashion.</p>	0 1 2 3 4	0 1 2 3 4	X	X	X	X	X	<p><u>Learning Objectives:</u></p> <p>Knowledge of and ability to apply physical access controls, technical security countermeasures, classification and safeguarding of controlled information and operational & industrial security. Ability to validate that appropriate countermeasures are being integrated correctly into program and to ensure that assurance evidence that demonstrates that the system is secure are produced.</p>	<p>- Information Systems Security</p> <p>- National Level IM/IT Policy</p> <p>- Trusted Systems</p> <p>- Discretionary and Mandatory Access Control</p> <p>- Identification and Authentication</p> <p>- Common criteria, DITSCAP</p> <p>- Assurance Evidence</p>	
<p><u>Developmental Opportunities:</u></p> <p>Learning:</p> <p>- NETg Technical Training Courses (all)</p> <p>Work-based:</p> <p>- Partnering with Industry (all)</p>	<p><u>Gap Assessment:</u></p> <p>_____ - _____ = _____</p> <p>Required Proficiency - Current Proficiency = Gap</p> <p><u>Gap Mitigation Strategy:</u></p>									

Career Area: Information Management**Job Role: Asset Management**

1 Competency: Asset Management		Proficiency:		Level:					Skill Topics:
		Current	Required	E	I	J	S	Ex	
<u>Strategic Value:</u> <i>To manage the inventory of DON and organization information management technology assets for DON programs and operations.</i>	<u>Learning Objectives:</u> Knowledge of and ability to apply methods and procedures to identify, purchase, distribute, and maintain information technology assets.	0 1 2 3 4	0 1 2 3 4	X	X	X			- Asset management - State-of-the-art planning strategies - Information technology - IT resource utilization - Acquisition packages
	<u>Developmental Opportunities:</u> Learning: - Information Resources Management College, Information Management Planning (all)	<u>Gap Assessment:</u> <div style="text-align: center;"> _____ - _____ = _____ Required Proficiency - Current Proficiency = Gap </div>					<u>Gap Mitigation Strategy:</u>		

Career Area: Information Management**Job Role: Asset Management**

2	Competency: Configuration Management	Proficiency:		Level:					Skill Topics:
<u>Strategic Value:</u> To track and document changes to information systems to ensure system and product characteristics conform to validated standards and standard profiles, and to support systems operations and trouble shooting.	<u>Learning Objectives:</u> Knowledge of and ability to identify, track (status accounting), control, and document information and physical characteristics of an information system or product (including documentation during a system's life cycle).	Current	Required	E	I	J	S	Ex	<ul style="list-style-type: none">- Software repository information- Hardware configuration administration- Network management tools- Software and hardware configuration management tools- Information systems software and hardware configuration modifications- Software metrics for status accounting of change management and process control- Configuration management standards, plans and policies- Problem reporting and analysis
		0 1 2 3 4	0 1 2 3 4	X	X	X			
	<u>Developmental Opportunities:</u> Learning: <ul style="list-style-type: none">- Attend formal CM training (E, I)- Attend CM conferences (I, J, S)- Information Resources Management College, Information Management Planning (all) Work-based: <ul style="list-style-type: none">- Participate in writing of CM plan (I, J)- Participate in a CM audit (I, J)- Serve on a configuration control board (I, J)- Attend a CCB meeting (E)	<u>Gap Assessment:</u> _____ - _____ = _____ Required Proficiency - Current Proficiency = Gap							
		<u>Gap Mitigation Strategy:</u>							

Career Area: Information Management**Job Role: Asset Management**

3 Competency: Business Development		Proficiency:		Level:					Skill Topics:
		Current	Required	E	I	J	S	Ex	
<u>Strategic Value:</u> <i>To sustain the structure and operations of the organization within projected cost and revenue, and to ensure requirements for planned growth and technology insertion are met with adequate capital investment resources.</i>	<u>Learning Objectives:</u> Knowledge of and ability to apply financial management, cost and revenue projections, business cases, plans, methods, practices, policies and procedures, industry trends and market surveys, justifications, approvals, determinations and findings.	0 1 2 3 4	0 1 2 3 4		X	X	X		- Marketing - Customer business requirements - Competitive proposal preparation and presentation - Customer service - Business case analysis
	<u>Developmental Opportunities:</u> Learning: - Managerial Accounting Course (all) - Financial management course (all) - Information Resources Management College, Information Management Planning (all)	<u>Gap Assessment:</u> <div style="text-align: center;"> _____ - _____ = _____ Required Proficiency - Current Proficiency = Gap </div> <u>Gap Mitigation Strategy:</u>							

Career Area: Information Management**Job Role: Asset Management**

4 Competency: Acquisition		Proficiency:		Level:					Skill Topics:
		Current	Required	E	I	J	S	Ex	
<u>Strategic Value:</u> <i>To ensure the organization's products and services reflect customer requirements, bot cost and technical, in a competitive environment, and to ensure these requirements are met through the acquisition process.</i>	<u>Learning Objectives:</u> Knowledge of and ability to apply Federal, DoD and DON acquisition management guidance and analytical methods to formally plan, organize, direct and control the program and project acquisition process.	0 1 2 3 4	0 1 2 3 4			X	X	X	- Procurement processes- Acquisition documentation - Life-cycle management - Economic analysis principles - Activity-based costing - DoD, DON budget and procurement processes - BPR methodologies, metrics, tools, and techniques - Plan and budgetary document development to support requirements - Metrics and performance analysis - Acquisition, Distribution and Disposal - Federal laws and DoD, DON regulations
	<u>Developmental Opportunities:</u> Learning: - Information Resources Management College, Information Management Planning (all) - Information Resources Management College, Information Technology Acquisition for the CIO (S, Ex)	<u>Gap Assessment:</u> <div style="text-align: center;"> _____ - _____ = _____ Required Current Proficiency Proficiency Gap </div> <u>Gap Mitigation Strategy:</u>							

Career Area: Information Management**Job Role: Asset Management**

5	Competency: Business Process Reengineering		Proficiency:		Level:					Skill Topics:
			Current	Required	E	I	J	S	Ex	
<u>Strategic Value:</u> <i>To ensure the organization's methods and processes support customer requirements, both cost and technical.</i>	<u>Learning Objectives:</u> Knowledge of and ability to apply analytical methods and procedures to review and assess information management processes and procedures to support the development and enhancement of administrative processes, procedures and organizations.	0 1 2 3 4 0 1 2 3 4				X	X	X	X	- Economic analysis principles - Activity-based costing - DoD and DON budget and procurement processes - BPR methodologies, metrics, tools and techniques - Automated information systems for specific computer projects - Plan and budgetary document development to support requirements
	<u>Developmental Opportunities:</u> Learning: - DoD BPR Certificate Program (all) - Information Resources Management College, Reengineering Organizational Processes (all) - Information Resources Management College, Information Measuring Results of Organizational Performance (all) - Information Resources Management College, Information Management Planning (all)	<u>Gap Assessment:</u> <div style="text-align: center;"> _____ - _____ = _____ Required Current Proficiency Proficiency Gap </div> <u>Gap Mitigation Strategy:</u>								

Career Area: Information Management**Job Role: Asset Management**

6	Competency: Program Management	Proficiency:		Level:					Skill Topics:
		Current	Required	E	I	J	S	Ex	
<u>Strategic Value:</u> <i>To achieve the needed outcomes of a specific program and related projects by ensuring proper management, performance and administration.</i>	<u>Learning Objectives:</u> Knowledge of the required outcomes, functional and political environments, organizations, activities, and constraints affecting a program. Knowledge of project definition and the ability to: relate required results and costs; lead teams that include members not in one's chain of command; apply systematic thinking to develop action plans; develop approaches to satisfy requirements and resolve issues; and ensure overall project quality. A PM has the knowledge and ability to coordinate the work of assigned staff and other functional experts matrixed to support the task.	0 1 2 3 4	0 1 2 3 4			X	X	X	- Program strategic planning - Program role in organization/enterprise - Visionary leadership - Performance assessment - Project integration management - Quality management - Risk management - Financial management
	<u>Developmental Opportunities:</u> Learning: - Information Resources Management College: (I, J, S) --Information Management Planning --Information Technology Acquisition for the CIO --IT Project Management --IT Capital Planning - STAR Program (all) - DAWIA (all) Work-based: - Serve as Contracting Officer's Representative (J, S)	<u>Gap Assessment:</u> <div style="text-align: center;"> _____ - _____ = _____ Required Current Proficiency Proficiency Gap </div> <u>Gap Mitigation Strategy:</u>							

Career Area: Information Management**Job Role: Asset Management**

7	Competency: Contracting Officers Representative (COR)		Proficiency:		Level:					Skill Topics:
	Current	Required	E	I	J	S	Ex			
<u>Strategic Value:</u> <i>To ensure contractor performance and delivery is in compliance with a given contract.</i>	0 1 2 3 4	0 1 2 3 4		X	X	X				
	<u>Learning Objectives:</u> Knowledge of and ability to make technical decisions within the scope of the contract/task; serve as the day-to-day point of contact for contractual matters; assess the technical quality of performed work; approve deliverables for acceptance.							- Deliverable item review and approval - Contract types (e.g., IDIQ, cost reimbursable, time and materials, firm fixed price) - Cost reporting - Contract rates - Delivery orders - Other direct costs (ODCs) - Contract Line Items (CLINs) - Contract milestones - Life cycle management - Statements of Work (SOW) - Contract options		
	<u>Developmental Opportunities:</u> Learning: - STAR Program (all) - DAWIA (all)		<u>Gap Assessment:</u> <div style="display: flex; justify-content: space-between; align-items: center;"> <div>_____</div> <div>-</div> <div>_____</div> <div>=</div> <div>_____</div> </div> <div style="display: flex; justify-content: space-between; align-items: center;"> <div>Required Proficiency</div> <div>-</div> <div>Current Proficiency</div> <div>=</div> <div>Gap</div> </div>							
			<u>Gap Mitigation Strategy:</u>							

Career Area: Information Management**Job Role: Asset Management**

8	Competency: Information Assurance		Proficiency:		Level:					Skill Topics:
			Current	Required	E	I	J	S	Ex	
Strategic Value: <i>To acquire, maintain and ensure the security of information systems in an effective, interoperable, scalable, reliable, integrated and affordable fashion.</i>	Learning Objectives: Knowledge of and ability to apply physical access controls, technical security countermeasures, classification and safeguarding of controlled information and operational & industrial security. Ability to validate that appropriate countermeasures are being integrated correctly into program and to ensure that assurance evidence that demonstrates that the system is secure are produced.	0 1 2 3 4 0 1 2 3 4	X	X	X	X	X		- Information Systems Security - National Level IM/IT Policy - Trusted Systems - Discretionary and Mandatory Access Control - Identification and Authentication - Common criteria, DITSCAP - Assurance Evidence	
	Developmental Opportunities: Learning: - NETg Technical Training Courses (all) Work-based: - Partnering with Industry (all)	Gap Assessment: <div style="text-align: center;"> _____ - _____ = _____ Required Current Proficiency Proficiency Gap </div> Gap Mitigation Strategy:								

Career Area: Information Management**Job Role: Capital Planning and Investment**

1	Competency: Business/Financial Management	Proficiency:		Level:					Skill Topics:
<u>Strategic Value:</u> To provide financial planning and budgeting, fiscal management, financial analysis and reporting, and accounting support for DON IM/IT programs.	<u>Learning Objectives:</u> Knowledge of and ability to develop budgets, prepare data for POM submission, analyze and assess program performance, and apply financial performance metrics.	Current	Required	E	I	J	S	Ex	<ul style="list-style-type: none">- Budget development- DoD PPBS/POM preparation- Program executability analysis- Affordability assessment- Resource allocation/optimization- Documentation preparation- Shortfall identification/tracking- Risk mitigation strategy development- Project baseline preparation- Trend analysis and forecasting- Accounting financial systems
	0 1 2 3 4	0 1 2 3 4		X	X	X			
	<u>Developmental Opportunities:</u> Learning: <ul style="list-style-type: none">- Information Resources Management College, Information Management Planning (all)- Information Resources Management College, IT Capital Planning (all)- University/commercially available business, finance and accounting courses (all)	<u>Gap Assessment:</u> _____ - _____ = _____ Required Proficiency - Current Proficiency = Gap <u>Gap Mitigation Strategy:</u>							

Career Area: Information Management**Job Role: Capital Planning and Investment**

2	Competency: Cost Estimating and Economic Analysis	Proficiency:		Level:					Skill Topics:
<u>Strategic Value:</u> To provide business decision analysis, cost estimating and modeling, economic analysis, and pricing and fee structuring support for DON IM/IT programs.	<u>Learning Objectives:</u> Knowledge of and ability to apply methods and tools of cost estimating and economic analysis.	Current	Required	E	I	J	S	Ex	<ul style="list-style-type: none">- Business Case Analysis- Cost/benefit analysis, Cost/risk analysis- Cost/performance trade studies- Feasibility studies- Financing strategies- Lease/purchase trade-offs- Return on Investment (ROI)- Independent cost estimates- Life cycle cost estimates- Infrastructure assessments- Outsourcing/privatization- Contract price negotiation- Cost realism
		0 1 2 3 4	0 1 2 3 4		X	X	X		
	<u>Developmental Opportunities:</u> Learning: <ul style="list-style-type: none">- Information Resources Management College, Information Management Planning (all)- Information Resources Management College, IT Capital Planning (all)- University/commercially available economics courses (all)	<u>Gap Assessment:</u> _____ - _____ = _____ Required Proficiency - Current Proficiency = Gap <u>Gap Mitigation Strategy:</u>							

Career Area: Information Management**Job Role: Capital Planning and Investment**

3 Competency: Acquisition		Proficiency:		Level:					Skill Topics:
		Current	Required	E	I	J	S	Ex	
<u>Strategic Value:</u> <i>To ensure the organization's products and services reflect customer requirements, bot cost and technical, in a competitive environment, and to ensure these requirements are met through the acquisition process.</i>	<u>Learning Objectives:</u> Knowledge of and ability to apply Federal, DoD and DON acquisition management guidance and analytical methods to formally plan, organize, direct and control the program and project acquisition process.	0 1 2 3 4	0 1 2 3 4			X	X	X	- Procurement processes - Acquisition documentation - Life-cycle management - Economic analysis principles - Activity-based costing - DoD, DON budget and procurement processes - BPR methodologies, metrics, tools, and techniques - Plan and budgetary document development to support requirements - Metrics and performance analysis - Acquisition, Distribution and Disposal - Federal laws and DoD, DON regulations
	<u>Developmental Opportunities:</u> Learning: - Information Resources Management College, Information Management Planning (all) - Information Resources Management College, IT Capital Planning (all) - Information Resources Management College, Information Technology Acquisition for the CIO (S, Ex)	<u>Gap Assessment:</u> <div style="text-align: center;"> _____ - _____ = _____ Required Current Proficiency Proficiency Gap </div> <u>Gap Mitigation Strategy:</u>							

Career Area: Information Management**Job Role: Capital Planning and Investment**

4 Competency: Business Development		Proficiency:		Level:					Skill Topics:
		Current	Required	E	I	J	S	Ex	
<u>Strategic Value:</u> <i>To sustain the structure and operations of the organization within projected cost and revenue, and to ensure requirements for planned growth and technology insertion are met with adequate capital investment resources.</i>	<u>Learning Objectives:</u> Knowledge of and ability to apply financial management, cost and revenue projections, business cases, plans, methods, practices, policies and procedures, industry trends and market surveys, justifications, approvals, determinations and findings.	0 1 2 3 4	0 1 2 3 4		X	X	X		- Marketing - Customer business requirements - Competitive proposal preparation and presentation - Customer service - Business case analysis
	<u>Developmental Opportunities:</u> Learning: - Information Resources Management College, Information Management Planning (all) - Information Resources Management College, IT Capital Planning (all)	<u>Gap Assessment:</u> <div style="text-align: center;"> _____ - _____ = _____ Required Proficiency - Current Proficiency = Gap </div> <u>Gap Mitigation Strategy:</u>							

Career Area: Information Management**Job Role: Capital Planning and Investment**

5	Competency: Policy Development and Implementation		Proficiency:		Level:					Skill Topics:										
			Current	Required	E	I	J	S	Ex											
<u>Strategic Value:</u> To develop staff and assist in the implementation of departmental policy regarding DON, DoD and Federal Government legislative mandates (i.e., Congressional Directives, Executive Orders, and policies relating to information systems).			<u>Learning Objectives:</u> Knowledge of and ability to apply information management concepts, principles, practices, procedures, policies, standards and operational requirements both internal and external to the DON (e.g., at the Joint Staff level) necessary to develop or modify policy.		0	1	2	3	4	0	1	2	3	4						- Commercial, Federal and Military standards - Regulatory environment - Operational procedures - Operational doctrine - Tariffs and pricing structures - Policy directives - Policy development - Migration/integration initiatives
<u>Developmental Opportunities:</u> Learning: - Information Resources Management College, Information Management Planning (all) - Information Resources Management College, IT Capital Planning (all) Work-based: - Serve in an policy organization as a staff action officer (J)			<u>Gap Assessment:</u> _____ - _____ = _____ Required Proficiency - Current Proficiency = Gap <u>Gap Mitigation Strategy:</u>																	

Career Area: Information Management**Job Role: Capital Planning and Investment**

6	Competency: Info. Technology, Info. Mgmt., Knowledge Mgmt.	Proficiency:		Level:					Skill Topics:
		Current	Required	E	I	J	S	Ex	
<u>Strategic Value:</u> <i>To ensure organization information resources are strategic assets that will provide the backbone of DON decision-making needs by utilizing information and knowledge resources most effectively.</i>	<u>Learning Objectives:</u> Knowledge of and ability to manage information, knowledge, information technology and related resources according to Federal laws and DoD, DON regulations.	0 1 2 3 4	0 1 2 3 4			X	X	X	- Information management - Information resource management - Computing and Communications - IM/IT acquisition - Information resource management regulations, policies and procedures - Knowledge Management - Leadership - Performance assessment - Capital planning and investment - Technology advances - Strategic planning - Process/change management - IM/IT architecture - Information Assurance
	<u>Developmental Opportunities:</u> Learning: - Information Resources Management College, CIO Certificate Program (J, S, Ex) - Federal CIO Council, CIO University (S, Ex)	<u>Gap Assessment:</u> <div style="text-align: center;"> _____ - _____ = _____ Required Proficiency - Current Proficiency = Gap </div> <u>Gap Mitigation Strategy:</u>							

Career Area: Information Management**Job Role: Capital Planning and Investment**

7	Competency: Business Process Reengineering	Proficiency:	Level:	Skill Topics:
<u>Strategic Value:</u> <i>To ensure the organization's methods and processes support customer requirements, both cost and technical.</i>	<u>Learning Objectives:</u> Knowledge of and ability to apply analytical methods and procedures to review and assess information management processes and procedures to support the development and enhancement of administrative processes, procedures and organizations.	Current	Required	E I J S Ex
		0 1 2 3 4	0 1 2 3 4	X X X X
	<u>Developmental Opportunities:</u> Learning: - DoD BPR Certificate Program (all) - Information Resources Management College: (all) -- Reengineering Organizational Processes -- Information Measuring Results of Organizational Performance -- Information Management Planning -- IT Capital Planning	<u>Gap Assessment:</u> _____ - _____ = _____ Required Proficiency - Current Proficiency = Gap		
		<u>Gap Mitigation Strategy:</u>		

Career Area: Information Management**Job Role: Capital Planning and Investment**

8	Competency: Operations Research		Proficiency:		Level:					Skill Topics:
			Current	Required	E	I	J	S	Ex	
<u>Strategic Value:</u> To assist customers in information systems assessment, planning, design, modifications, and strategy development.	<u>Learning Objectives:</u> Knowledge of and ability to perform design, trade off and cost benefit analysis, and to evaluate and optimize information systems.		0 1 2 3 4	0 1 2 3 4	X	X	X	X		- Modeling methods - Correlation analysis - Analysis of variance - Parameter estimation from statistical samples - Parametric and nonparametric test of significance - Principal component analysis - Monte-Carlo analysis - Analytical hierarchical process - Decision support - Bayesian inferencing - Automated statistical evaluation packages (e.g., SAS, SYSTAT, S-PLUS, SPSS, STATISTICA) - Graphical presentations/visualization- Spread sheet programs (e.g., Excel, 1-2-3) - Sampling theory
	<u>Developmental Opportunities:</u> Learning: - Attend courses in operations research (E, I) - Information Resources Management College, Information Management Planning (all) - Information Resources Management College, IT Capital Planning (all)	<u>Gap Assessment:</u> <div style="text-align: center;"> _____ - _____ = _____ Required Proficiency - Current Proficiency = Gap </div> <u>Gap Mitigation Strategy:</u>								

Career Area: Information Management**Job Role: Capital Planning and Investment**

9	Competency: Program Management	Proficiency:		Level:					Skill Topics:
		Current	Required	E	I	J	S	Ex	
<u>Strategic Value:</u> To achieve the needed outcomes of a specific program and related projects by ensuring proper management, performance and administration.	<u>Learning Objectives:</u> Knowledge of the required outcomes, functional and political environments, organizations, activities, and constraints affecting a program. Knowledge of project definition and the ability to: relate required results and costs; lead teams that include members not in one's chain of command; apply systematic thinking to develop action plans; develop approaches to satisfy requirements and resolve issues; and ensure overall project quality. A PM has the knowledge and ability to coordinate the work of assigned staff and other functional experts matrixed to support the task.	0 1 2 3 4	0 1 2 3 4			X	X	X	- Program strategic planning - Program role in organization/enterprise - Visionary leadership - Performance assessment - Project integration management - Quality management - Risk management - Financial management
	<u>Developmental Opportunities:</u> Learning: - Information Resources Management College: (I, J, S) --Information Management Planning --Information Technology Acquisition for the CIO --IT Project Management --IT Capital Planning - STAR Program (all) - DAWIA (all) Work-based: - Serve as Contracting Officer's Representative (J, S)	<u>Gap Assessment:</u> <div style="text-align: center;"> _____ - _____ = _____ Required Current = Gap Proficiency Proficiency </div> <u>Gap Mitigation Strategy:</u>							

Career Area: Information Management**Job Role: Capital Planning and Investment**

10	Competency: Contracting Officers Representative (COR)		Proficiency:		Level:					Skill Topics:											
			Current	Required	E	I	J	S	Ex												
<u>Strategic Value:</u> <i>To ensure contractor performance and delivery is in compliance with a given contract.</i>			<u>Learning Objectives:</u> Knowledge of and ability to make technical decisions within the scope of the contract/task; serve as the day-to-day point of contact for contractual matters; assess the technical quality of performed work; approve deliverables for acceptance.		0	1	2	3	4	0	1	2	3	4							- Deliverable item review and approval - Contract types (e.g., IDIQ, cost reimbursable, time and materials, firm fixed price) - Cost reporting - Contract rates - Delivery orders - Other direct costs (ODCs) - Contract Line Items (CLINs) - Contract milestones - Life cycle management - Statements of Work (SOW) - Contract options
<u>Developmental Opportunities:</u> Learning: - Information Resources Management College, IT Capital Planning (all) - STAR Program (all) - DAWIA (all)			<u>Gap Assessment:</u> _____ - _____ = _____ Required Proficiency - Current Proficiency = Gap <u>Gap Mitigation Strategy:</u>																		

Career Area: Information Management**Job Role: Capital Planning and Investment**

11	Competency: Information Assurance	Proficiency:		Level:					Skill Topics:
<u>Strategic Value:</u> To acquire, maintain and ensure the security of information systems in an effective, interoperable, scalable, reliable, integrated and affordable fashion.	<u>Learning Objectives:</u> Knowledge of and ability to apply physical access controls, technical security countermeasures, classification and safeguarding of controlled information and operational & industrial security. Ability to validate that appropriate countermeasures are being integrated correctly into program and to ensure that assurance evidence that demonstrates that the system is secure are produced.	Current	Required	E	I	J	S	Ex	- Information Systems Security - National Level IM/IT Policy - Trusted Systems - Discretionary and Mandatory Access Control - Identification and Authentication - Common criteria, DITSCAP - Assurance Evidence
		0 1 2 3 4	0 1 2 3 4	X	X	X	X	X	
	<u>Developmental Opportunities:</u> Learning: - NETg Technical Training Courses (all) Work-based: - Partnering with Industry (all)	<u>Gap Assessment:</u> _____ - _____ = _____ Required Proficiency - Current Proficiency = Gap <u>Gap Mitigation Strategy:</u>							

Career Area: Information Management**Job Role: CIO**

1	Competency: Policy and Organization	Proficiency:		Level:					Skill Topics:
		Current	Required	E	I	J	S	Ex	
Strategic Value: <i>To be able to communicate with an extremely wide range of people and work in a fast-changing environment (technology, legislation, policy, and politics).</i>	Learning Objectives: Knowledge of and ability to identify and describe the various departmental Agency missions, organization, functions, policies and procedures; discuss governing laws and regulations; discuss decision making approaches; identify linkages between Agency departmental heads; identify Intergovernmental programs, policies, and processes' evaluate privacy laws and regulations; and manage Agency information..	0 1 2 3 4	0 1 2 3 4					X	X
	Developmental Opportunities: Learning: - CIO University (S, Ex) - DLAMP (S, Ex) - OPM Federal Executive Institute (Ex) - OPM Management Development Center (S, Ex) - DON HR Civilian Leadership Development Program (S, Ex) - STAR Program (S, Ex)- DAWIA (S, Ex)	Gap Assessment: _____ - _____ = _____ Required Proficiency - Current Proficiency = Gap					- Departmental Agency missions, organization, function, policies, procedures - Governing laws and regulations (e.g. Clinger-Cohen, GPRA, PRA, GPEA, OMB Circular A-130, PDD 63) - Federal government decision-making, policy making process and budget formulation and execution process - Linkages and interrelationships among Agency heads, COO, CIO, and CFO functions - Intergovernmental programs, policies, and processes - Privacy and security - Information Management		
Gap Mitigation Strategy: 									

Career Area: Information Management**Job Role: CIO**

2	Competency: Leadership/Managerial	Proficiency:		Level:					Skill Topics:
<u>Strategic Value:</u> To move beyond management to leadership and understand the dimensions of Clinger-Cohen, and how they play out operationally in an organization. Interpersonal skills are essential for success because of the frequency of change, and the need to communicate vision	<u>Learning Objectives:</u> Knowledge of and ability to define roles, skill sets, and responsibilities of Senior IRM Officials, CIO, IRM staff, and stakeholders; apply methods for building federal IT management and technical staff expertise; test competencies using standards, certification, and performance assessment; build partnerships and teams; manage personnel performance; and attract and retain qualified IT personnel.	Current	Required	E	I	J	S	Ex	- Defining roles, skill sets, and responsibilities of Senior Officials, CIO staff and stakeholders - Methods for building federal IT management and technical staff expertise - Competency testing - standards, certification, and performance assessment - Partnership/team-building techniques - Personnel performance management techniques - Principles and practices of knowledge management - Practices which attract and retain qualified IT personnel
	<u>Developmental Opportunities:</u> Learning: - CIO University (S, Ex) - DLAMP (S, Ex) - OPM Federal Executive Institute (Ex) - OPM Management Development Center (S, Ex) - DON HR Civilian Leadership Development Program (S, Ex) - STAR Program (S, Ex)- DAWIA (S, Ex)	<u>Gap Assessment:</u> _____ - _____ = _____ Required Proficiency - Current Proficiency = Gap <u>Gap Mitigation Strategy:</u>							

Career Area: Information Management**Job Role: CIO**

3	Competency: Process/Change Management	Proficiency:		Level:					Skill Topics:
		Current	Required	E	I	J	S	Ex	
Strategic Value: <i>To distinguish between the behavioral and affective dimensions of change management which are more related to leadership and the cognitive dimensions of process management which provide "measuring points" and are a tool for change management.</i>	Learning Objectives: Knowledge of and ability to lead change; apply modeling and simulation tools and techniques; apply quality improvement tools and methods; apply techniques of organizational development and change; and apply techniques and models of process management and control.	0 1 2 3 4	0 1 2 3 4					X	X
	Developmental Opportunities: Learning: - CIO University (S, Ex) - DLAMP (S, Ex) - OPM Federal Executive Institute (Ex) - OPM Management Development Center (S, Ex) - DON HR Civilian Leadership Development Program (S, Ex) - STAR Program (S, Ex) - DAWIA (S, Ex)	Gap Assessment: <div style="text-align: center;"> _____ - _____ = _____ Required Current Proficiency Proficiency Gap </div> Gap Mitigation Strategy:					- Techniques/models of organizational development and change - Techniques and models of process management and control - Modeling and simulation tools and methods - Quality improvement models and methods - Business process redesign/reengineering models and methods		

Career Area: Information Management**Job Role: CIO**

4	Competency: Information Resources Strategy and Planning		Proficiency:		Level:					Skill Topics:
			Current	Required	E	I	J	S	Ex	
Strategic Value: <i>To ensure information technology is a value-adding dimension of the business plan.</i>	Learning Objectives: Knowledge of and ability to perform IT baseline assessments; perform interdepartmental and inter-agency IT functional analysis; analyze and apply IT planning methodologies; perform contingency planning; and apply monitoring and evaluation methods and techniques.	0 1 2 3 4	0 1 2 3 4					X	X	- IT baseline assessment analysis - Interdepartmental, inter-agency IT functional analysis - IT planning methodologies - Contingency planning - Monitoring and evaluation methods and techniques
	Developmental Opportunities: Learning: - CIO University (S, Ex) - DLAMP (S, Ex) - OPM Federal Executive Institute (Ex) - OPM Management Development Center (S, Ex) - DON HR Civilian Leadership Development Program (S, Ex) - STAR Program (S, Ex) - DAWIA (S, Ex)	Gap Assessment: <div style="text-align: center;"> _____ - _____ = _____ Required Current Proficiency Proficiency Gap </div>								
		Gap Mitigation Strategy:								

Career Area: Information Management**Job Role: CIO**

5	Competency: Performance Assessment Models and Methods	Proficiency:		Level:					Skill Topics:	
<u>Strategic Value:</u> To be aware of the range of perspectives on performance and of the types of performance measures available and embrace a systems perspective for IT and its assessment process(es). To understand the importance of baseline assessment measures—existence, qualitative measures and quantitative measures (example: ROI) in the performance assessment cycle.	<u>Learning Objectives:</u> Knowledge of and ability to apply the GPRA (Government Performance Results Act) to measure the business value of IT; monitor and measure new system development; measure IT success; apply processes and tools for creating, administering and analyzing survey questionnaires; define and select effective performance measures; and manage IT reviews and the oversight process.	Current	Required	E	I	J	S	Ex	<div>- Non-monetary contributions of IT to business value (usability, efficiency, productivity, perceived value, etc.)</div> <div>- Current federal performance legislation (e.g. GPRA, ITMRA, Clinger-Cohen, PRA of 1995) and performance mandates</div> <div>- PPBS lifecycle</div> <div>- Life cycle management</div> <div>- Tools, including S-curve (time over money, performance over cost etc.) evaluation systems, that are typically used to make go/no go decisions</div> <div>- 80/20 and Pareto Analysis</div> <div>- Approaches/tools for measuring IT success (GQMM, Balanced Scorecard, Benchmarking, Best Practices, etc.)</div> <div>- Leading and lagging indicators</div> <div>- Survey collection techniques (e.g., interview, elite interview, focus groups, surveys, questionnaires)</div> <div>- Role and responsibilities of managers (program managers, project managers, program leads, etc., etc.) in the IT review process</div>	
		0 1 2 3 4	0 1 2 3 4					X		X
	<u>Developmental Opportunities:</u> Learning: <div>- CIO University (S, Ex)</div> <div>- DLAMP (S, Ex)</div> <div>- OPM Federal Executive Institute (Ex)</div> <div>- OPM Management Development Center (S, Ex)</div> <div>- DON HR Civilian Leadership Development Program (S, Ex)</div> <div>- STAR Program (S, Ex)</div> <div>- DAWIA (S, Ex)</div>	<u>Gap Assessment:</u> <div><div></div> - <div></div> = <div></div></div> <div>Required Proficiency - Current Proficiency = Gap</div>								
		<u>Gap Mitigation Strategy:</u>								

Job Role: CIO

6	Competency: Project/Program Management	Proficiency:		Level:					Skill Topics:	
<u>Strategic Value:</u> To ensure the proper management, performance and administration of DON programs and projects.	<u>Learning Objectives:</u> Knowledge of and ability to manage project scope and requirements; manage project integration; manage project time, cost and performance; apply project quality assurance methods; manage project risk; and manage project procurement.	Current	Required	E	I	J	S	Ex	<ul style="list-style-type: none">- Partnering (vendors, external)- Moving of resources and allocating and integrating resources across programs- KM tools- External integration tools and opportunities- Project management tools- Performance, resources, cost, schedule, business objectives- Program strategic planning- Program role in organization/enterprise- Visionary leadership- Performance assessment/metrics- Project integration management- Quality management- Risk management and types of risk (e.g., technical, obsolescence, technology capability, stovepipes, time, cost, resources, external partners, competing projects, security and threat, lack of synergy)- Financial management tools and techniques (e.g., budget process, ROI, PPBES)- EIS systems, DSS systems, Earned Value Management- IV&V- Project management lifecycle	
		0 1 2 3 4	0 1 2 3 4					X		X
	<u>Developmental Opportunities:</u> Learning: <ul style="list-style-type: none">- CIO University (S, Ex)- DLAMP (S, Ex)- OPM Federal Executive Institute (Ex)- OPM Management Development Center (S, Ex)- DON HR Civilian Leadership Development Program (S, Ex)- STAR Program (S, Ex)- DAWIA (S, Ex)	<u>Gap Assessment:</u> _____ - _____ = _____ Required - Current = Gap Proficiency Proficiency								
		<u>Gap Mitigation Strategy:</u>								

Career Area: Information Management**Job Role: CIO**

7	Competency: Capital Planning and Investment Assessment	Proficiency:	Level:	Skill Topics:
<u>Strategic Value:</u> <i>To understand the importance of Capital Planning and Investment Analysis; to decentralized IT and make each agency autonomous in the way it plans, invests in and implements IT; to provide a framework for running government with the same disciplines as private business.</i>	<u>Learning Objectives:</u> Knowledge of and ability to apply best practices; analyze cost/benefit, economics and risk; apply risk management models and methods; weigh benefits of alternative IT investments; perform capital investment analysis; perform business case analysis; integrate performance with mission and budget process; and perform investment review.	Current 0 1 2 3 4	Required 0 1 2 3 4	E I J S Ex X X
	<u>Developmental Opportunities:</u> Learning: - CIO University (S, Ex) - DLAMP (S, Ex) - OPM Federal Executive Institute (Ex) - OPM Management Development Center (S, Ex) - DON HR Civilian Leadership Development Program (S, Ex) - STAR Program (S, Ex) - DAWIA (S, Ex)	<u>Gap Assessment:</u> _____ - _____ = _____ Required Proficiency - Current Proficiency = Gap		
		<u>Gap Mitigation Strategy:</u>		

Career Area: Information Management**Job Role: CIO**

8 Competency: Acquisition		Proficiency:		Level:					Skill Topics:
		Current	Required	E	I	J	S	Ex	
<u>Strategic Value:</u> <i>To link technology investment to business outcomes and results, as defined by the end consumer; to anticipate what is needed before it is officially stated, and develop requirements that include the end users; to create an innovative acquisition environment throughout the organization to monitor changes in acquisition models and methods.</i>	<u>Learning Objectives:</u> Knowledge of and ability to use a strategic plan to drive the acquisition strategy; apply alternative acquisition models; utilize streamlined acquisition methodologies; apply post-award IT contract management models and methods, including past performance evaluation; and apply IT acquisition best practices.	0 1 2 3 4	0 1 2 3 4					X	X
	<u>Developmental Opportunities:</u> Learning: - CIO University (S, Ex) - DLAMP (S, Ex) - OPM Federal Executive Institute (Ex) - OPM Management Development Center (S, Ex) - DON HR Civilian Leadership Development Program (S, Ex) - STAR Program (S, Ex) - DAWIA (S, Ex)	<u>Gap Assessment:</u> _____ - _____ = _____ Required Proficiency - Current Proficiency = Gap					<u>Gap Mitigation Strategy:</u> - Interpretation of internal and external environments, the business, fiscal and political environments, and technological and environmental change in the development of the acquisition strategy - Components of an acquisition model - Acquisition philosophies and models (e.g., Traditional (DoD) milestones (5 phases or 4 phases); FAA model (spiral, 3 phases); IRS model (outsourcing acquisition—agency as super system's integrator); Commercial best practices (off the shelf); SAP (Streamlined Acquisition Process); Defense Enterprise Program (C17); USMC Compressed Acquisition) - Sourcing issues, type(s) of contract, award fees, use of subcontractors - FAR - Post-award contract management methods and strategies (e.g., Performance based service contracts, Methods of control (interfaces, checkpoints), Benchmarks, Tracking performance, Incentives for good performance, Managing changes in the contract, Termination strategies)		

Career Area: Information Management**Job Role: CIO**

9	Competency: E-Government/Electronic Business/Electronic Commerce	Proficiency:		Level:					Skill Topics:
<u>Strategic Value:</u> To conduct business in an integrated and automated paperless information environment.	<u>Learning Objectives:</u> Knowledge of and ability to discuss strategic business issues and changes with the advent of E-Government/E-business and electronic commerce; develop web development strategies; apply industry standards and practices for communications; discuss channel issues (supply chains); understand dynamic pricing; deliver consumer/citizen information services; identify social issues.	Current	Required	E	I	J	S	Ex	- Electronic mail - Electronic bulletin board systems - Electronic funds transfer - Business Process Evaluation/Reengineering - Economic/Cost Benefit Analysis - Project Planning/Development - Enterprise Integration/Implementation - EC/EDI Standards - Coordination/Development Support - Training and awareness
		0 1 2 3 4	0 1 2 3 4					X	
	<u>Developmental Opportunities:</u> Learning: - CIO University (S, Ex) - DLAMP (S, Ex) - OPM Federal Executive Institute (Ex) - OPM Management Development Center (S, Ex) - DON HR Civilian Leadership Development Program (S, Ex) - STAR Program (S, Ex) - DAWIA (S, Ex)	<u>Gap Assessment:</u> _____ - _____ = _____ Required - Current = Gap Proficiency Proficiency <u>Gap Mitigation Strategy:</u>							

Career Area: Information Management**Job Role: CIO**

10	Competency: IT Security/Information Assurance		Proficiency:		Level:					Skill Topics:											
			Current	Required	E	I	J	S	Ex												
<u>Strategic Value:</u> <i>To acquire, maintain and ensure the security of information systems in an effective, interoperable, scalable, reliable, integrated and affordable fashion.</i>			<u>Learning Objectives:</u> Knowledge of and ability to apply fundamental principles and best practices in IA; threats and vulnerabilities to IT systems; legal and policy issues for management and end users; sources for IT security assistance; standard operating procedures for reacting to intrusions/misuses of Federal IT systems.		0	1	2	3	4	0	1	2	3	4							- Information Systems Security - National Level IM/IT Policy - Trusted Systems - Discretionary and Mandatory Access Control - Identification and Authentication - Common criteria, DITSCAP - Assurance Evidence
<u>Developmental Opportunities:</u> Learning: - NETg Technical Training Courses (all) Work-based: - Partnering with Industry (all)			<u>Gap Assessment:</u> _____ - _____ = _____ Required Proficiency - Current Proficiency = Gap <u>Gap Mitigation Strategy:</u>																		

Career Area: Information Management**Job Role: CIO**

11	Competency: Technical	Proficiency:					Level:					Skill Topics:						
<u>Strategic Value:</u> To have an integrative understanding of how technology works, but not be technical in the sense of a developer; to understand the strengths and weaknesses of tools, how they work, what they are good for, and their limits; to play the role of a "universal translator" especially regarding technical ideas and terms; to make use of analytical processes, including statistical measures, in order to make competent decisions; to bring technical vision (interaction between the business and technology) to guide the organization into new business directions while remembering that the business rules must be the drivers of the technology; to distinguish between the technology itself and the process of applying the technology.	<u>Learning Objectives:</u> Knowledge of and ability to apply Information Systems Architectures, client/server, collaborative processing, and telecommunications concepts; apply emerging/developing technologies; apply information delivery technologies; apply security policy, disaster recovery, and business resumption methods and tools; understand a system's life cycle; manage the development of software; and manage data.	Current		Required			E	I	J	S	Ex	<ul style="list-style-type: none">- Architectural frameworks- Elements of the IT architecture- Federal architecture guidance for business and technology drivers- Risk management approaches to legacy and pioneering technologies- Integrating emerging technologies into existing systems- Information delivery technology trends (e.g., internet, intranet, kiosks)- Ethical and intellectual property issues- Media choices and access issues- Risk management and contingency plans- Opportunity costs- Security methods (e.g., encryption, access control, physical security, training, threat analysis, authentication)- Life cycle components and standards (e.g., SEI, ISO 12207, STD-16, ISO 9000)- Software development models (e.g., CMM, emerging best practices, IDEF, RAD, JAD, IBT)- Multi-dimensional software environment- Data management plans- Data standardization- Data modeling, mining, warehousing, exchange and interchange						
		0	1	2	3	4	0	1	2	3	4						X	X
	<u>Developmental Opportunities:</u> Learning: <ul style="list-style-type: none">- CIO University (S, Ex)- DLAMP (S, Ex)- OPM Federal Executive Institute (Ex)- OPM Management Development Center (S, Ex)- DON HR Civilian Leadership Development Program (S, Ex)- STAR Program (S, Ex)- DAWIA (S, Ex)	<u>Gap Assessment:</u> _____ - _____ = _____ Required Proficiency - Current Proficiency = Gap <u>Gap Mitigation Strategy:</u>																

Career Area: Information Management**Job Role: CIO**

12	Competency: Desktop Technology Tools		Proficiency:		Level:					Skill Topics:
			Current	Required	E	I	J	S	Ex	
<u>Strategic Value:</u> <i>To be familiar with and competent in the use and applications of desktop technology tools.</i>	<u>Learning Objectives:</u> Knowledge of and ability to Identify the steps needed and develop a plan to create an environment that encourages continuous learning, to include competency in the use and applications of desktop technologies; to discuss the implications, cost-benefit, productivity, etc. of training mandates such as those contained in Executive Order 11299 and other directives.	0 1 2 3 4	0 1 2 3 4					X	X	- Continuous learning - Cost-benefit analysis - Productivity analysis - Performance measures - Training mandates (e.g., EO 11299) - Desktop applications
	<u>Developmental Opportunities:</u> Learning: - Information Resources Management College, CIO Certificate Program (J, S, Ex) - Federal CIO Council, CIO University (S, Ex)	<u>Gap Assessment:</u> <div style="display: flex; justify-content: space-between; width: 100%;"> _____ - _____ = _____ </div> <div style="display: flex; justify-content: space-between; width: 100%;"> Required Proficiency - Current Proficiency = Gap </div> <u>Gap Mitigation Strategy:</u>								

Career Area: Information Management**Job Role: Competency Management**

1	Competency: Human Resource (HR) Management		Proficiency:		Level:					Skill Topics:
	Current	Required	E	I	J	S	Ex			
<p><u>Strategic Value:</u></p> <p>To ensure that the DON IM/IT workforce is provided with a human resources infrastructure that supports its career development, management, advancement and compensation; to ensure the recruitment, retention and training of the IM/IT workforce needed to fulfill core capabilities.</p>	<p><u>Learning Objectives:</u></p> <p>Knowledge of and ability to apply the tools, policies, procedures and methods of human resources while ensuring the human resource support requirements of the DON IM/IT workforce.</p>	<p>0 1 2 3 4</p>	<p>0 1 2 3 4</p>				X	X		<ul style="list-style-type: none"> - Manpower requirements - Statistics - DoD, DON mission, organization and roles - Mission support requirements - HR tools and methods - Federal, DoD and DON HR policy and procedures - Recruiting - Retention strategies - Training
	<p><u>Developmental Opportunities:</u></p> <p>Learning:</p> <ul style="list-style-type: none"> - Information Resources Management College, Information Management Planning (all) 		<p><u>Gap Assessment:</u></p> <p>_____ - _____ = _____</p> <p>Required Proficiency - Current Proficiency = Gap</p> <p><u>Gap Mitigation Strategy:</u></p>							

Career Area: Information Management**Job Role: Competency Management**

2	Competency:	Competency Definition	Proficiency:		Level:					Skill Topics:
			Current	Required	E	I	J	S	Ex	
<u>Strategic Value:</u> To establish IM/IT competency guidelines for the DON.	<u>Learning Objectives:</u> Knowledge of and ability to develop definitions that describe the core IM/IT job areas, roles, competencies, appropriate levels and developmental opportunities for the DON.		0 1 2 3 4	0 1 2 3 4			X	X		- Competency modeling - DON mission, organization and roles - IM/IT skills assessment - Job task analyses - Developmental opportunities - Certification programs - Occupational series titling/structure
	<u>Developmental Opportunities:</u> Learning: - Information Resources Management College, Information Management Planning (all)	<u>Gap Assessment:</u> _____ - _____ = _____ Required Proficiency - Current Proficiency = Gap <u>Gap Mitigation Strategy:</u>								

Career Area: Information Management**Job Role: Competency Management**

3 Competency: Organizational Development		Proficiency:		Level:					Skill Topics:
		Current	Required	E	I	J	S	Ex	
<u>Strategic Value:</u> <i>To assess, develop and implement business practices that improve organizational effectiveness.</i>	<u>Learning Objectives:</u> Knowledge of the principles of organizational development and change management theories and ability to apply them in an information technology environment.	0 1 2 3 4	0 1 2 3 4			X	X		- Change management - Business process reengineering - Best practices - Human resource management - IT education and training - Workforce development
	<u>Developmental Opportunities:</u> Learning: - Information Resources Management College, Information Management Planning (all)	<u>Gap Assessment:</u> <div style="display: flex; justify-content: space-between; width: 100%;"> _____ - _____ = _____ </div> <div style="display: flex; justify-content: space-between; width: 100%;"> Required Proficiency - Current Proficiency = Gap </div>							
		<u>Gap Mitigation Strategy:</u>							

Career Area: Information Management**Job Role: Competency Management**

4	Competency: Distributed Learning Technologies	Proficiency:		Level:					Skill Topics:
<u>Strategic Value:</u> To evaluate, design and/or develop an infrastructure that allows for cost-effective, affordable and accessible IM/IT training.	<u>Learning Objectives:</u> Knowledge of and ability to design, develop, evaluate distributed learning environments; ability to direct the development of distance learning courseware and systems.	Current	Required	E	I	J	S	Ex	<ul style="list-style-type: none">- Analysis design, development and evaluation- Instructional Systems Design (ISD)- Multimedia and web technologies- COTS integration- Authoring and programming languages- Simulation tools- Object-oriented Technology- Courseware development- Computer-Based Training (CBT)/Computer Assisted Instruction (CAI)/Web-based Training (WBT)- Intelligent Tutors- Performance Support Systems- Simulation Development- Advanced Distributed Learning (ADL) initiative- SCORM
		0 1 2 3 4	0 1 2 3 4			X	X		
	<u>Developmental Opportunities:</u> Learning: <ul style="list-style-type: none">- Information Resources Management College, Information Management Planning (all)- Information Resources Management College, Global Enterprise Networking and Telecommunications (all)	<u>Gap Assessment:</u> _____ - _____ = _____ Required Proficiency - Current Proficiency = Gap							
		<u>Gap Mitigation Strategy:</u>							

Career Area: Information Management**Job Role: Competency Management**

5	Competency: Info. Technology, Info. Mgmt., Knowledge Mgmt.	Proficiency:		Level:					Skill Topics:
		Current	Required	E	I	J	S	Ex	
<u>Strategic Value:</u> <i>To ensure organization information resources are strategic assets that will provide the backbone of DON decision-making needs by utilizing information and knowledge resources most effectively.</i>	<u>Learning Objectives:</u> Knowledge of and ability to manage information, knowledge, information technology and related resources according to Federal laws and DoD, DON regulations.	0 1 2 3 4	0 1 2 3 4			X	X	X	- Information management - Information resource management - Computing and Communications - IM/IT acquisition - Information resource management regulations, policies and procedures - Knowledge Management - Leadership - Performance assessment - Capital planning and investment - Technology advances - Strategic planning - Process/change management - IM/IT architecture - Information Assurance
	<u>Developmental Opportunities:</u> Learning: - Information Resources Management College, CIO Certificate Program (J, S, Ex) - Federal CIO Council, CIO University (S, Ex)	<u>Gap Assessment:</u> <div style="display: flex; justify-content: space-between; width: 100%;"> _____ - _____ = _____ </div> <div style="display: flex; justify-content: space-between; width: 100%;"> Required Proficiency - Current Proficiency = Gap </div> <u>Gap Mitigation Strategy:</u>							

Career Area: Information Management**Job Role: Competency Management**

6	Competency: Program Management	Proficiency:		Level:					Skill Topics:
		Current	Required	E	I	J	S	Ex	
<u>Strategic Value:</u> <i>To achieve the needed outcomes of a specific program and related projects by ensuring proper management, performance and administration.</i>	<u>Learning Objectives:</u> Knowledge of the required outcomes, functional and political environments, organizations, activities, and constraints affecting a program. Knowledge of project definition and the ability to: relate required results and costs; lead teams that include members not in one's chain of command; apply systematic thinking to develop action plans; develop approaches to satisfy requirements and resolve issues; and ensure overall project quality. A PM has the knowledge and ability to coordinate the work of assigned staff and other functional experts matrixed to support the task.	0 1 2 3 4	0 1 2 3 4			X	X	X	- Program strategic planning - Program role in organization/enterprise - Visionary leadership - Performance assessment - Project integration management - Quality management - Risk management - Financial management
	<u>Developmental Opportunities:</u> Learning: - Information Resources Management College: (I, J, S) --Information Management Planning --Information Technology Acquisition for the CIO --IT Project Management --IT Capital Planning - STAR Program (all) - DAWIA (all) Work-based: - Serve as Contracting Officer's Representative (J, S)	<u>Gap Assessment:</u> <div style="text-align: center;"> _____ - _____ = _____ Required Current = Gap Proficiency Proficiency </div> <u>Gap Mitigation Strategy:</u>							

Career Area: Information Management**Job Role: Competency Management**

7	Competency: Contracting Officers Representative (COR)		Proficiency:		Level:					Skill Topics:
			Current	Required	E	I	J	S	Ex	
<u>Strategic Value:</u> <i>To ensure contractor performance and delivery is in compliance with a given contract.</i>	<u>Learning Objectives:</u> Knowledge of and ability to make technical decisions within the scope of the contract/task; serve as the day-to-day point of contact for contractual matters; assess the technical quality of performed work; approve deliverables for acceptance.	0 1 2 3 4	0 1 2 3 4		X	X	X			<ul style="list-style-type: none"> - Deliverable item review and approval - Contract types (e.g., IDIQ, cost reimbursable, time and materials, firm fixed price) - Cost reporting - Contract rates - Delivery orders - Other direct costs (ODCs) - Contract Line Items (CLINs) - Contract milestones - Life cycle management - Statements of Work (SOW) - Contract options
	<u>Developmental Opportunities:</u> Learning: - STAR Program (all) - DAWIA (all)	<u>Gap Assessment:</u> <div style="display: flex; justify-content: space-around; align-items: center;"> <div>_____</div> <div>-</div> <div>_____</div> <div>=</div> <div>_____</div> </div> <div style="display: flex; justify-content: space-around; align-items: center; margin-top: 10px;"> <div>Required Proficiency</div> <div>-</div> <div>Current Proficiency</div> <div>=</div> <div>Gap</div> </div> <u>Gap Mitigation Strategy:</u>								

Career Area: Information Management**Job Role: E-Business/E-Government**

1	Competency: Telecommunication System Architecture	Proficiency:		Level:					Skill Topics:
		Current	Required	E	I	J	S	Ex	
Strategic Value: <i>To design and implement information transfer/telecommunications requirements into an integrated architecture.</i>	Learning Objectives: Knowledge of and ability to integrate major components of information/telecommunications networks and systems to include an understanding of their functionality, interfaces, associated technology and topology.	0 1 2 3 4	0 1 2 3 4	X	X	X	X		- Telecommunications networks - Mission analysis - Strategic and tactical military communications - Performance planning - Design and functional tradeoffs - Transmission modulation techniques - Operational effectiveness - Acquisition management - Router and multiplexer technology - Proposal evaluation
	Developmental Opportunities: Learning: - Information Resources Management College, Managing Information Architectures and Infrastructures (all) - Information Resources Management College, Critical Information Systems Technologies (all) - Information Resources Management College, Global Enterprise Networking and Telecommunications (all) - Information Resources Management College, The Information Highway (all) - Various commercially available courses (all) Work-based: - Assignment to an N6 or CIO organization	Gap Assessment: _____ - _____ = _____ Required Proficiency - Current Proficiency = Gap							
Gap Mitigation Strategy:									

Career Area: Information Management**Job Role: E-Business/E-Government**

2	Competency: Internet Technologies	Proficiency:		Level:					Skill Topics:
<u>Strategic Value:</u> To ensure that Internet/Intranet websites and portals meet requirements, are maintainable, on schedule and within cost.	<u>Learning Objectives:</u> Knowledge of and ability to apply emerging web design methodologies and technologies for developing products and systems.	Current	Required	E	I	J	S	Ex	<ul style="list-style-type: none">- HTML- Javascript- CGI- Perl script- XML- DoD policies and guidelines for web development- Website design and structure- Management of internal and external websites- Monitoring website functionality and security- Collection and analysis of website statistics- Testing, troubleshooting and resolving web problems- Evaluating web applications- Network architecture and software- Object oriented technology
		0 1 2 3 4	0 1 2 3 4	X	X	X	X		
	<u>Developmental Opportunities:</u> Learning: <ul style="list-style-type: none">- Information Resources Management College, Managing Information Architectures and Infrastructures (all)- Information Resources Management College, Critical Information Systems Technologies (all)- Information Resources Management College, Global Enterprise Networking and Telecommunications (all)- Information Resources Management College, The Information Highway (all)- Various commercially available courses (all)	<u>Gap Assessment:</u> _____ - _____ = _____ Required Proficiency - Current Proficiency = Gap <u>Gap Mitigation Strategy:</u>							

Career Area: Information Management**Job Role: E-Business/E-Government**

3	Competency: Information Assurance	Proficiency:					Level:					Skill Topics:
Strategic Value:	Learning Objectives:	Current	Required	E	I	J	S	Ex				
		0 1 2 3 4	0 1 2 3 4									
To maintain and ensure the security of information systems in an effective, interoperable, scalable, reliable, integrated and affordable fashion; to protect and restore the security of information systems and network services and capabilities; identify and eliminate information systems vulnerabilities to inadvertent disclosure, modification, destruction, or denial of service.	Knowledge of and ability to protect and defend information and information systems by ensuring their availability, authentication, confidentiality and integrity; Knowledge of and ability to develop, identify, evaluate, coordinate, acquire, implement, operate and disseminate security tools and procedures.			X	X	X	X		- Information Systems Security - Threats and vulnerabilities of information systems, countermeasures, risk analysis - Security testing - INFOSEC principles and practices - Federal, DoD, DON information systems security policies, procedures, applicable laws - Cryptography - Information systems modeling methods - Capacity planning - Migration strategy development - Customer information system planning, design and modification assistance			
	<u>Developmental Opportunities:</u> Learning: - Information Resources Management College: (all) -- Global Enterprise Networking and Telecommunications -- Managing Information Security in a Networked Environment - NETg Technical Training Courses (all) Work-based: - Serve as an Information System Security Officer (ISSO) or assist the ISSO (J) - Develop security plans and/or policies (J, S) - Analyze security software, hardware support tools (I) - Conduct, assist in risk assessments (I, J) - Conduct system vulnerability tests (J) - Perform or assist in system security certification and accreditation (I, J) - Partnering with Industry (all)	<u>Gap Assessment:</u> _____ - _____ = _____ Required Proficiency - Current Proficiency = Gap <u>Gap Mitigation Strategy:</u>					- Change management and control processes - Development and maintenance tools - Release package planning/status accounting - Asset management tools - Configuration management history - Human factors practices and guidelines - Network security issues - Network performance monitoring - PKI strategies/policies/technology					

Career Area: Information Management**Job Role: E-Business/E-Government**

4 Competency: Business Process Reengineering		Proficiency:		Level:					Skill Topics:
		Current	Required	E	I	J	S	Ex	
<u>Strategic Value:</u> To ensure the organization's methods and processes support enterprise IM/IT requirements, both cost and technical.	<u>Learning Objectives:</u> Knowledge of and ability to apply analytical methods and procedures to review and assess IM/IT processes and procedures to support the development and enhancement of administrative processes, procedures and organizations.	0 1 2 3 4	0 1 2 3 4		X	X	X	X	- Economic analysis principles - Activity-based costing - DoD and DON budget and procurement processes - BPR methodologies, metrics, tools and techniques - Automated information systems for specific computer projects - Plan and budgetary document development to support requirements - Architecture
	<u>Developmental Opportunities:</u> Learning: - DoD BPR Certificate Program (all) - Information Resources Management College, Reengineering Organizational Processes (all) - Information Resources Management College, Information Measuring Results of Organizational Performance (all) - Information Resources Management College, Information Management Planning (all)	<u>Gap Assessment:</u> _____ - _____ = _____ Required Proficiency - Current Proficiency = Gap							
		<u>Gap Mitigation Strategy:</u>							

Career Area: Information Management**Job Role: E-Business/E-Government**

5	<u>Competency:</u> Policy Assessment		<u>Proficiency:</u>		<u>Level:</u>					<u>Skill Topics:</u>
			Current	Required	E	I	J	S	Ex	
<u>Strategic Value:</u> To assess and accommodate DON electronic business requirements.	<u>Learning Objectives:</u> Knowledge of and ability to analyze, plan, schedule, coordinate and develop electronic business policy issuances that direct the course of electronic commerce programs within the DON.	0 1 2 3 4	0 1 2 3 4		X	X	X	X		- Telecommunications equipment - DON communications-Interoperability deficiencies - Migration - Operational procedures - Operational doctrine - DoD security - Data handling - Information systems networks (hardware/software) - Policy directives - IT Regulations and law
	<u>Developmental Opportunities:</u> Learning: - Information Resources Management College, Information Management Planning (all) - Information Resources Management College, Strategic Management of Websites (all) Work-based: - Serve in an policy organization as a staff action officer (E, I)	<u>Gap Assessment:</u> _____ - _____ = _____ Required Proficiency - Current Proficiency = Gap				<u>Gap Mitigation Strategy:</u>				

Career Area: Information Management**Job Role: E-Business/E-Government**

6	Competency: Integrated Network Management	Proficiency:		Level:					Skill Topics:
		Current	Required	E	I	J	S	Ex	
Strategic Value: <i>To provide network management systems to support the operation, administration and maintenance of voice, data, imagery and video networks.</i>	Learning Objectives: Knowledge of and ability to apply methods/tools to carry out operational performance monitoring, configuration management, fault detection and isolation, security management and corrective action on systems, networks, circuits and equipment.	0 1 2 3 4	0 1 2 3 4	X	X	X			- Security management methods and tools - Operational performance monitoring - Configuration management - Fault detection and isolation - Security management - Corrective action - Telecommunications systems - Networks, circuits and equipment - Cryptography
	Developmental Opportunities: Learning: - Information Resources Management College, Global Enterprise Networking and Telecommunications (all) - Attend university/commercial network operations course (E, I) Work-based: - Work as network administrator for operational session (I, J)	Gap Assessment: <div style="text-align: center;"> _____ - _____ = _____ Required Proficiency - Current Proficiency = Gap </div>			Gap Mitigation Strategy:				

Career Area: Information Management**Job Role: E-Business/E-Government**

7	Competency: Standards		Proficiency:		Level:					Skill Topics:								
	Current	Required	E	I	J	S	Ex											
<p><u>Strategic Value:</u></p> <p>To promote interoperability, security, portability and scalability by ensuring requirements are inserted into standards development efforts, developing standards profiles and promoting the development of standards compliant products.</p>	<p><u>Learning Objectives:</u></p> <p>Knowledge of and ability to develop and maintain standards and to influence standards development and standards development bodies.</p>		0	1	2	3	4	0	1	2	3	4	X	X	X	X	X	<ul style="list-style-type: none"> - Standards development process - Standards development bodies - Standards-based open systems architecture - Reference models - Profiles of standards (e.g., DoD Technical Reference Model, Joint Technical Architecture, Information Technology Standards Guidance, IEEE Open Systems Reference Model, NIST Applications Portability Profile)
	<p><u>Developmental Opportunities:</u></p> <p>Learning:</p> <ul style="list-style-type: none"> - Attend courses on standards (E, I) - Attend standards symposiums and technical conferences (I, J) - Subscribe to technical journals (E, I, J, S) <p>Work-based:</p> <ul style="list-style-type: none"> - Serve on standards committees (J, S) - Staff positions related to standards (all) 		<p><u>Gap Assessment:</u></p> <p>_____ - _____ = _____</p> <p>Required Proficiency - Current Proficiency = Gap</p> <p><u>Gap Mitigation Strategy:</u></p>															

Career Area: Information Management**Job Role: E-Business/E-Government**

8	Competency: E-Business		Proficiency:		Level:					Skill Topics:
			Current	Required	E	I	J	S	Ex	
Strategic Value: <i>To conduct business in an integrated and automated paperless information environment</i>	Learning Objectives: Knowledge of and ability to develop and apply electronic commerce tools and electronic data interchange policy, practices, standards, and procedures.	0 1 2 3 4 0 1 2 3 4	X	X	X	X				- Electronic mail - Electronic bulletin board systems - Electronic funds transfer - Business Process Evaluation/Reengineering - Economic/Cost Benefit Analysis - Project Planning/Development - Enterprise Integration/Implementation - EC/EDI Standards - Coordination/Development Support - Training and awareness - Internet/intranet technologies and policies - Extensible Markup Language (XML)
	Developmental Opportunities: Learning: - Information Resources Management College, Data Management Strategies and Technologies: A Managerial Perspective (all) - Relevant university/commercial courses (E, I, J)	Gap Assessment: <div style="display: flex; justify-content: space-between; width: 100%;"> _____ - _____ = _____ </div> <div style="display: flex; justify-content: space-between; width: 100%;"> Required Proficiency - Current Proficiency = Gap </div> Gap Mitigation Strategy:								

Career Area: Information Management**Job Role: E-Business/E-Government**

9	Competency: Computer Systems Architecture	Proficiency:		Level:					Skill Topics:
<u>Strategic Value:</u> To provide secure information systems that are effective, interoperable, scalable, reliable, integrated and affordable.	<u>Learning Objectives:</u> Understanding of computer system components and their functions, including component interfaces and associated services.	Current	Required	E	I	J	S	Ex	<ul style="list-style-type: none">- Computer systems architecture- Computer systems security components and component operation- Data interchange services- Computer security design including hardware components, configuration and interface- Distributed processing- Operating systems- Systems software- Cryptographic equipment and systems- Networks- Emanations security and TEMPEST- Specifications and uses of embedded computers
		0 1 2 3 4	0 1 2 3 4	X	X	X	X		
	<u>Developmental Opportunities:</u> Learning: <ul style="list-style-type: none">- Information Resources Management College, Information Management Planning (all)- Information Resources Management College, Managing Information Architectures and Infrastructures (all)	<u>Gap Assessment:</u> _____ - _____ = _____ Required Proficiency - Current Proficiency = Gap <u>Gap Mitigation Strategy:</u>							

Career Area: Information Management**Job Role: E-Business/E-Government**

10	Competency: Systems Integration	Proficiency:	Level:	Skill Topics:
	<u>Strategic Value:</u> <i>To manage the integration of subsystems into a system.</i>	<u>Learning Objectives:</u> Knowledge of and ability to integrate large information systems.	Current Required E I J S Ex 0 1 2 3 4 0 1 2 3 4	- Integration methods, tools and metrics - System interoperability - Software portability - Software scalability - System security - System testing - DoD and DON Enterprise migration strategies - Specifications and uses of embedded computers
	<u>Developmental Opportunities:</u> Learning: - Information Resources Management College, Managing Information Architectures and Infrastructures (all) - System engineering courses (I) - Attend system engineering symposia (I, J, S) - Present at system engineering symposia (J, S) - Management and supervisor training courses (J, S, Ex) Work-based: - Participate in interface design specification (I) - Participate in integration testing (I)	<u>Gap Assessment:</u> _____ - _____ = _____ Required Current Proficiency Proficiency = Gap <u>Gap Mitigation Strategy:</u>		

Career Area: Information Management**Job Role: E-Business/E-Government**

11	Competency: Software Development	Proficiency:		Level:					Skill Topics:
<u>Strategic Value:</u> To ensure that software being developed meets requirements, is maintainable, on schedule and within cost.	<u>Learning Objectives:</u> Knowledge of and ability to apply traditional and emerging design methodologies and programming services for developing software products and systems.	Current	Required	E	I	J	S	Ex	<ul style="list-style-type: none">- DoD policies and guidelines- Database architecture and DBMS- Configuration management- Network architecture and software- Open systems and standards- CASE methodology and tools- Operating systems- Programming languages and coding- Object-oriented technology- Software testing- Quality assurance- Business Process Reengineering- Software reuse- Software metrics- DoD data administration
		0 1 2 3 4	0 1 2 3 4	X	X	X	X		
	<u>Developmental Opportunities:</u> Learning: <ul style="list-style-type: none">- Classes on programming languages (E, I, J)- Classes in Software engineering (E, I, J)- Class in capability maturity model (E, I, J) Work-based: <ul style="list-style-type: none">- Participate in in-house software development project (E, I)- Lead in house software development team (J)	<u>Gap Assessment:</u> _____ - _____ = _____ Required Proficiency - Current Proficiency = Gap <u>Gap Mitigation Strategy:</u>							

Career Area: Information Management**Job Role: E-Business/E-Government**

12	Competency: Program Management	Proficiency:		Level:					Skill Topics:	
<u>Strategic Value:</u> To achieve the needed outcomes of a specific program and related projects by ensuring proper management, performance and administration.	<u>Learning Objectives:</u> Knowledge of the required outcomes, functional and political environments, organizations, activities, and constraints affecting a program. Knowledge of project definition and the ability to: relate required results and costs; lead teams that include members not in one's chain of command; apply systematic thinking to develop action plans; develop approaches to satisfy requirements and resolve issues; and ensure overall project quality. A PM has the knowledge and ability to coordinate the work of assigned staff and other functional experts matrixed to support the task.	Current	Required	E	I	J	S	Ex	<ul style="list-style-type: none">- Program strategic planning- Program role in organization/enterprise- Visionary leadership- Performance assessment- Project integration management- Quality management- Risk management- Financial management	
		0 1 2 3 4	0 1 2 3 4				X	X		X
	<u>Developmental Opportunities:</u> Learning: <ul style="list-style-type: none">- Information Resources Management College: (I, J, S)--Information Management Planning--Information Technology Acquisition for the CIO--IT Project Management--IT Capital Planning- STAR Program (all)- DAWIA (all) Work-based: <ul style="list-style-type: none">- Serve as Contracting Officer's Representative (J, S)	<u>Gap Assessment:</u> _____ - _____ = _____ Required Proficiency - Current Proficiency = Gap <u>Gap Mitigation Strategy:</u>								

Career Area: Information Management**Job Role: E-Business/E-Government**

13	Competency: Contracting Officers Representative (COR)		Proficiency:		Level:					Skill Topics:
			Current	Required	E	I	J	S	Ex	
<u>Strategic Value:</u> <i>To ensure contractor performance and delivery is in compliance with a given contract.</i>	<u>Learning Objectives:</u> Knowledge of and ability to make technical decisions within the scope of the contract/task; serve as the day-to-day point of contact for contractual matters; assess the technical quality of performed work; approve deliverables for acceptance.		0 1 2 3 4	0 1 2 3 4		X	X	X		- Deliverable item review and approval - Contract types (e.g., IDIQ, cost reimbursable, time and materials, firm fixed price) - Cost reporting - Contract rates - Delivery orders - Other direct costs (ODCs) - Contract Line Items (CLINs) - Contract milestones - Life cycle management - Statements of Work (SOW) - Contract options
	<u>Developmental Opportunities:</u> Learning: - STAR Program (all) - DAWIA (all)	<u>Gap Assessment:</u> <div style="text-align: center;"> _____ - _____ = _____ Required Proficiency - Current Proficiency = Gap </div> <u>Gap Mitigation Strategy:</u>								

Career Area: Information Management**Job Role: Learning**

1	Competency: Info. Technology, Info. Mgmt., Knowledge Mgmt.	Proficiency:		Level:					Skill Topics:
		Current	Required	E	I	J	S	Ex	
<u>Strategic Value:</u> <i>To ensure organization information resources are strategic assets that will provide the backbone of DON decision-making needs by utilizing information and knowledge resources most effectively.</i>	<u>Learning Objectives:</u> Knowledge of and ability to manage information, knowledge, information technology and related resources according to Federal laws and DoD, DON regulations.	0 1 2 3 4	0 1 2 3 4			X	X	X	- Information management - Information resource management - Computing and Communications - IM/IT acquisition - Information resource management regulations, policies and procedures - Knowledge Management - Leadership - Performance assessment - Capital planning and investment - Technology advances - Strategic planning - Process/change management - IM/IT architecture - Information Assurance
	<u>Developmental Opportunities:</u> Learning: - Information Resources Management College, CIO Certificate Program (J, S, Ex) - Federal CIO Council, CIO University (S, Ex)	<u>Gap Assessment:</u> <div style="text-align: center;"> _____ - _____ = _____ Required Proficiency - Current Proficiency = Gap </div> <u>Gap Mitigation Strategy:</u>							

Career Area: Information Management**Job Role: Learning**

2	Competency: Instructional Systems Design (ISD)	Proficiency:		Level:					Skill Topics:
		Current	Required	E	I	J	S	Ex	
<u>Strategic Value:</u> <i>To analyze/strategize, design, develop, deliver and evaluate training courseware using the Instructional Systems Design (ISD) model.</i>	<u>Learning Objectives:</u> Knowledge of and ability to apply the ISD model, from an instructional technology and delivery system standpoint, for IM/IT courseware.	0 1 2 3 4	0 1 2 3 4	X	X	X	X		- Impact analysis - Analysis design, development and evaluation - Courseware development - Needs/requirements analysis - Instructor-led training - Computer-based training (CBT)/Computer Assisted Instruction (CAI)/Web-based Training (WBT) - On-line help - Job aids - User manuals - Instructor guides - Lesson plans - Participant guides - Study guides
	<u>Developmental Opportunities:</u> Learning: - Information Resources Management College, Information Management Planning (all) - University/commercial courses in ISD (all)	<u>Gap Assessment:</u> <div style="display: flex; justify-content: space-between; align-items: center;"> <div>_____</div> <div>-</div> <div>_____</div> <div>=</div> <div>_____</div> </div> <div style="display: flex; justify-content: space-between; align-items: center; margin-top: 10px;"> <div>Required Proficiency</div> <div>-</div> <div>Current Proficiency</div> <div>=</div> <div>Gap</div> </div> <u>Gap Mitigation Strategy:</u>							

Career Area: Information Management**Job Role: Learning**

3	Competency: Distributed Learning Technologies	Proficiency:		Level:					Skill Topics:
		Current	Required	E	I	J	S	Ex	
Strategic Value: <i>To evaluate, design and/or develop an infrastructure that allows for cost-effective, affordable and accessible IM/IT training.</i>	Learning Objectives: Knowledge of and ability to design, develop, evaluate distributed learning environments; ability to direct the development of distance learning courseware and systems.	0 1 2 3 4	0 1 2 3 4	X	X	X	X		- Analysis design, development and evaluation - Instructional Systems Design (ISD) - Multimedia and web technologies - COTS integration - Authoring and programming languages - Simulation tools - Object-oriented Technology - Courseware development - Computer-Based Training (CBT)/Computer Assisted Instruction (CAI)/Web-based Training (WBT) - Intelligent Tutors - Performance Support Systems - Simulation Development - Advanced Distributed Learning (ADL) initiative - SCORM
	Developmental Opportunities: Learning: - Information Resources Management College, Information Management Planning (all) Work-based: - Develop SCORM-compliant education and training modules (all)	Gap Assessment: _____ - _____ = _____ Required Proficiency - Current Proficiency = Gap							
		Gap Mitigation Strategy:							

Career Area: Information Management**Job Role: Learning**

4	Competency: Learning Policy Assessment	Proficiency:		Level:					Skill Topics:
		Current	Required	E	I	J	S	Ex	
<u>Strategic Value:</u> To assess and accommodate DON IM/IT learning policy requirements.	<u>Learning Objectives:</u> Knowledge of and ability to analyze, plan, schedule, coordinate and develop IM/IT learning policy issuances and guidance that directs the course of IM/IT training and education programs within the DON.	0 1 2 3 4	0 1 2 3 4		X	X	X		- Policy directives - Continuous learning - Human resources issues
	<u>Developmental Opportunities:</u> Learning: - Information Resources Management College, Information Management Planning (all) Work-based: - Serve in an policy organization as a staff action officer (I, J)	<u>Gap Assessment:</u> _____ - _____ = _____ Required Proficiency - Current Proficiency = Gap <u>Gap Mitigation Strategy:</u>							

Career Area: Information Management**Job Role: Learning**

5	<u>Competency:</u> Education & Training Delivery		<u>Proficiency:</u>		<u>Level:</u>					<u>Skill Topics:</u>
			Current	Required	E	I	J	S	Ex	
<u>Strategic Value:</u> To provide delivery of IM/IT education and training for areas requiring military expertise or current knowledge of military operations.	<u>Learning Objectives:</u> Knowledge of methods and practices of training delivery and ability to effectively present training material.		0 1 2 3 4	0 1 2 3 4	X	X	X	X		- Military operations - Training system infrastructure - Print/electronic training materials - Training conduct/instructional support - Training delivery, management, logistics, material replication and distribution - Train-the-trainer support and materials - Facilities design - Installation support - System development - Technology transfer training - Customer support
	<u>Developmental Opportunities:</u> Learning: - Information Resources Management College, Information Management Planning (all)	<u>Gap Assessment:</u> <div style="display: flex; justify-content: space-between; width: 100%;"> _____ - _____ = _____ </div> <div style="display: flex; justify-content: space-between; width: 100%;"> Required Proficiency - Current Proficiency = Gap </div> <u>Gap Mitigation Strategy:</u>								

Career Area: Information Management**Job Role: Learning**

6	Competency: Program Management	Proficiency:		Level:					Skill Topics:
		Current	Required	E	I	J	S	Ex	
<u>Strategic Value:</u> <i>To achieve the needed outcomes of a specific program and related projects by ensuring proper management, performance and administration.</i>	<u>Learning Objectives:</u> Knowledge of the required outcomes, functional and political environments, organizations, activities, and constraints affecting a program. Knowledge of project definition and the ability to: relate required results and costs; lead teams that include members not in one's chain of command; apply systematic thinking to develop action plans; develop approaches to satisfy requirements and resolve issues; and ensure overall project quality. A PM has the knowledge and ability to coordinate the work of assigned staff and other functional experts matrixed to support the task.	0 1 2 3 4	0 1 2 3 4			X	X	X	- Program strategic planning - Program role in organization/enterprise - Visionary leadership - Performance assessment - Project integration management - Quality management - Risk management - Financial management
	<u>Developmental Opportunities:</u> Learning: - Information Resources Management College: (I, J, S) --Information Management Planning --Information Technology Acquisition for the CIO --IT Project Management --IT Capital Planning - STAR Program (all) - DAWIA (all) Work-based: - Serve as Contracting Officer's Representative (J, S)	<u>Gap Assessment:</u> <div style="text-align: center;"> _____ - _____ = _____ Required Current Proficiency Proficiency Gap </div> <u>Gap Mitigation Strategy:</u>							

Career Area: Information Management**Job Role: Learning**

7	Competency: Contracting Officers Representative (COR)		Proficiency:		Level:					Skill Topics:
	Current	Required	E	I	J	S	Ex			
<u>Strategic Value:</u> <i>To ensure contractor performance and delivery is in compliance with a given contract.</i>	<u>Learning Objectives:</u> Knowledge of and ability to make technical decisions within the scope of the contract/task; serve as the day-to-day point of contact for contractual matters; assess the technical quality of performed work; approve deliverables for acceptance.		0 1 2 3 4	0 1 2 3 4		X	X	X	- Deliverable item review and approval - Contract types (e.g., IDIQ, cost reimbursable, time and materials, firm fixed price) - Cost reporting - Contract rates - Delivery orders - Other direct costs (ODCs) - Contract Line Items (CLINs) - Contract milestones - Life cycle management - Statements of Work (SOW) - Contract options	
	<u>Developmental Opportunities:</u> Learning: - STAR Program (all) - DAWIA (all)		<u>Gap Assessment:</u> <div style="text-align: center;"> _____ - _____ = _____ Required Proficiency - Current Proficiency = Gap </div> <u>Gap Mitigation Strategy:</u>							

Career Area: Information Management**Job Role: Manpower Planning**

1	Competency: Info. Technology, Info. Mgmt., Knowledge Mgmt.	Proficiency:		Level:					Skill Topics:
		Current	Required	E	I	J	S	Ex	
<u>Strategic Value:</u> <i>To ensure organization information resources are strategic assets that will provide the backbone of DON decision-making needs by utilizing information and knowledge resources most effectively.</i>	<u>Learning Objectives:</u> Knowledge of and ability to manage information, knowledge, information technology and related resources according to Federal laws and DoD, DON regulations.	0 1 2 3 4	0 1 2 3 4			X	X	X	- Information management - Information resource management - Computing and Communications - IM/IT acquisition - Information resource management regulations, policies and procedures - Knowledge Management - Leadership - Performance assessment - Capital planning and investment - Technology advances - Strategic planning - Process/change management - IM/IT architecture - Information Assurance
	<u>Developmental Opportunities:</u> Learning: - Information Resources Management College, CIO Certificate Program (J, S, Ex) - Federal CIO Council, CIO University (S, Ex)	<u>Gap Assessment:</u> <div style="text-align: center;"> _____ - _____ = _____ Required Proficiency - Current Proficiency = Gap </div>							
		<u>Gap Mitigation Strategy:</u>							

Career Area: Information Management**Job Role: Manpower Planning**

2	Competency: Manpower Planning and Requirements Analysis		Proficiency:		Level:					Skill Topics:
	Current	Required	E	I	J	S	Ex			
<u>Strategic Value:</u> To sustain the structure and operations of the DON and to ensure that planned growth and technology insertion are met with adequate manpower.	0 1 2 3 4	0 1 2 3 4				X	X			
<u>Learning Objectives:</u> Knowledge of and ability to apply projections, business cases, plans, methods, practices, policies and procedures, industry trends and market surveys, justifications, approvals, determinations and findings; ability to identify, specify and analyze workforce infrastructure requirements										
<u>Developmental Opportunities:</u> Learning: - Information Resources Management College, Information Management Planning (all)	<u>Gap Assessment:</u> _____ - _____ = _____ Required Proficiency - Current Proficiency = Gap <u>Gap Mitigation Strategy:</u>									

- Marketing
- Manpower requirements
- Business case analysis
- Modeling methods- Statistics
- DoD, DON mission, organization and roles
- Mission support requirements
- Analysis tools and methods
- Customer requirements
- Operations and logistics requirements

Career Area: Information Management**Job Role: Manpower Planning**

3	Competency: Human Resource (HR) Management		Proficiency:		Level:					Skill Topics:
			Current	Required	E	I	J	S	Ex	
Strategic Value: <i>To ensure that the DON IM/IT workforce is provided with a human resources infrastructure that supports its career development, management, advancement and compensation.</i>	Learning Objectives: Knowledge of and ability to apply the tools, policies, procedures and methods of human resources while ensuring the human resource support requirements of the DON IM/IT workforce.	0 1 2 3 4 0 1 2 3 4					X	X	X	- Manpower requirements - Statistics - DoD, DON mission, organization and roles - Mission support requirements - HR tools and methods - Federal, DoD and DON HR policy and procedures
	Developmental Opportunities: Learning: - Information Resources Management College, Information Management Planning (all)	Gap Assessment: <div style="display: flex; justify-content: space-between; width: 100%;"> _____ - _____ = _____ </div> <div style="display: flex; justify-content: space-between; width: 100%;"> Required Proficiency - Current Proficiency = Gap </div>								
		Gap Mitigation Strategy:								

Career Area: Information Management**Job Role: Manpower Planning**

4	Competency: Policy Assessment	Proficiency:		Level:					Skill Topics:
		Current	Required	E	I	J	S	Ex	
<u>Strategic Value:</u> To assess Federal, DoD and DON policy in terms of military, civilian and contractor manpower requirements	<u>Learning Objectives:</u> Knowledge of and ability to analyze, plan, schedule, coordinate and develop manpower policy issuances that direct the makeup of the DON IM/IT workforce.	0 1 2 3 4	0 1 2 3 4		X	X	X	X	- Operational procedures - Operational doctrine - DoD, DON mission, organization and roles - Policy directives - Manpower requirements - Federal, DoD and DON policy and procedures
	<u>Developmental Opportunities:</u> Learning: - Information Resources Management College, Information Management Planning (all) Work-based: - Serve in an policy organization as a staff action officer (I, J)	<u>Gap Assessment:</u> _____ - _____ = _____ Required Proficiency - Current Proficiency = Gap <u>Gap Mitigation Strategy:</u>							

Career Area: Information Management**Job Role: Manpower Planning**

5	Competency: Program Management	Proficiency:		Level:					Skill Topics:
		Current	Required	E	I	J	S	Ex	
<u>Strategic Value:</u> To achieve the needed outcomes of a specific program and related projects by ensuring proper management, performance and administration.	<u>Learning Objectives:</u> Knowledge of the required outcomes, functional and political environments, organizations, activities, and constraints affecting a program. Knowledge of project definition and the ability to: relate required results and costs; lead teams that include members not in one's chain of command; apply systematic thinking to develop action plans; develop approaches to satisfy requirements and resolve issues; and ensure overall project quality. A PM has the knowledge and ability to coordinate the work of assigned staff and other functional experts matrixed to support the task.	0 1 2 3 4	0 1 2 3 4			X	X	X	- Program strategic planning - Program role in organization/enterprise - Visionary leadership - Performance assessment - Project integration management - Quality management - Risk management - Financial management
	<u>Developmental Opportunities:</u> Learning: - Information Resources Management College: (I, J, S) --Information Management Planning --Information Technology Acquisition for the CIO --IT Project Management --IT Capital Planning - STAR Program (all) - DAWIA (all) Work-based: - Serve as Contracting Officer's Representative (J, S)	<u>Gap Assessment:</u> _____ - _____ = _____ Required Proficiency - Current Proficiency = Gap <u>Gap Mitigation Strategy:</u>							

Career Area: Information Management**Job Role: Manpower Planning**

6	Competency: Contracting Officers Representative (COR)		Proficiency:		Level:					Skill Topics:	
			Current	Required	E	I	J	S	Ex		
Strategic Value: <i>To ensure contractor performance and delivery is in compliance with a given contract.</i>	Learning Objectives: Knowledge of and ability to make technical decisions within the scope of the contract/task; serve as the day-to-day point of contact for contractual matters; assess the technical quality of performed work; approve deliverables for acceptance.	0 1 2 3 4	0 1 2 3 4		X	X	X			<ul style="list-style-type: none"> - Deliverable item review and approval - Contract types (e.g., IDIQ, cost reimbursable, time and materials, firm fixed price) - Cost reporting - Contract rates - Delivery orders - Other direct costs (ODCs) - Contract Line Items (CLINs) - Contract milestones - Life cycle management - Statements of Work (SOW) - Contract options 	
	Developmental Opportunities: Learning: - STAR Program (all) - DAWIA (all)	Gap Assessment: <div style="text-align: center;"> _____ - _____ = _____ Required Proficiency - Current Proficiency = Gap </div>									
		Gap Mitigation Strategy:									

Career Area: Information Management**Job Role: Performance Assessment**

1	Competency: Network Monitoring	Proficiency:		Level:					Skill Topics:
		Current	Required	E	I	J	S	Ex	
<u>Strategic Value:</u> <i>To design and operate network management systems to support the operation, administration, and maintenance of voice, video, data, imagery and video networks.</i>	<u>Learning Objectives:</u> Knowledge of and ability to apply methods and tools to carry out operational performance monitoring, fault detection and isolation and corrective action on telecommunications systems, networks, circuits and equipment.	0 1 2 3 4	0 1 2 3 4	X	X	X			- Network management - Telecommunications networks - Strategic and tactical military communications - Media characteristics - Policy and resource constraints - Integrated Logistics Support (ILS) - Site survey - Facility management - Configuration management - Provisioning policy - Trunk and circuit allocation and engineering process
	<u>Developmental Opportunities:</u> Learning: - Information Resources Management College, Information Management Planning (all) - Information Resources Management College, Global Enterprise Networking and Telecommunications (all) - Information Resources Management College, The Information Highway (all)	<u>Gap Assessment:</u> <div style="text-align: center;"> _____ - _____ = _____ Required Current Proficiency Proficiency Gap </div> <u>Gap Mitigation Strategy:</u>							

Career Area: Information Management**Job Role: Performance Assessment**

2	Competency: Performance Metrics	Proficiency:		Level:					Skill Topics:
		Current	Required	E	I	J	S	Ex	
<u>Strategic Value:</u> <i>To identify qualitative and quantitative measures of effectiveness in support of DON IM/IT programs.</i>	<u>Learning Objectives:</u> Knowledge of and ability to apply the tools, methodologies, and procedures to measure or evaluate enterprise IM/IT performance.	0 1 2 3 4	0 1 2 3 4		X	X	X		- Activity-based costing - Earned value management - Outcomes-based performance management/Benefits realization
	<u>Developmental Opportunities:</u> Learning: - Information Resources Management College, Information Management Planning (all)	<u>Gap Assessment:</u> <div style="text-align: center;"> _____ - _____ = _____ Required Proficiency - Current Proficiency = Gap </div>					<u>Gap Mitigation Strategy:</u> 		

Career Area: Information Management**Job Role: Performance Assessment**

3	Competency: Modeling and Simulation		Proficiency:		Level:					Skill Topics:
	Current	Required	E	I	J	S	Ex			
<u>Strategic Value:</u> <i>To evaluate and assess evolving information systems and to ensure greater efficiency, improved service, and cost effective operations.</i>	0 1 2 3 4	0 1 2 3 4		X	X	X				
<u>Learning Objectives:</u> Knowledge of and ability to apply modeling and simulation tools and techniques to characterize systems of interest, to support decisions involving requirements, to evaluate design alternatives, to support training, or to support operational preparation.										
<u>Developmental Opportunities:</u> Learning: - Attend M&S conferences (I, J) - Information Resources Management College, Information Management Planning (all) Work-based: - Visiting other DoD/civilian sites to learn about modeling and simulation (all)	<u>Gap Assessment:</u> _____ - _____ = _____ Required Proficiency - Current Proficiency = Gap <u>Gap Mitigation Strategy:</u>							- Analytic modeling (includes methods and tools) - Time-step simulation - Event-step simulation - Trace capture/playback - Remote terminal emulation - Database sampling - Test data generators - Protocols for federated models (e.g., DIS, ALSP, HLA)		

Career Area: Information Management**Job Role: Performance Assessment**

4	Competency: Business Process Reengineering	Proficiency:		Level:					Skill Topics:
		Current	Required	E	I	J	S	Ex	
<u>Strategic Value:</u> <i>To ensure the organization's methods and processes support enterprise IM/IT requirements, both cost and technical.</i>	<u>Learning Objectives:</u> Knowledge of and ability to apply analytical methods and procedures to review and assess IM/IT processes and procedures to support the development and enhancement of administrative processes, procedures and organizations.	0 1 2 3 4	0 1 2 3 4		X	X	X	X	- Economic analysis principles - Activity-based costing - DoD and DON budget and procurement processes - BPR methodologies, metrics, tools and techniques - Automated information systems for specific computer projects - Plan and budgetary document development to support requirements
	<u>Developmental Opportunities:</u> Learning: - DoD BPR Certificate Program (all) - Information Resources Management College, Reengineering Organizational Processes (all) - Information Resources Management College, Information Measuring Results of Organizational Performance (all) - Information Resources Management College, Information Management Planning (all)	<u>Gap Assessment:</u> <div style="text-align: center;"> _____ - _____ = _____ Required Current Proficiency Proficiency Gap </div> <u>Gap Mitigation Strategy:</u>							

Career Area: Information Management**Job Role: Performance Assessment**

5	<u>Competency:</u> Requirements Analysis		<u>Proficiency:</u>		<u>Level:</u>					<u>Skill Topics:</u>
			Current	Required	E	I	J	S	Ex	
<u>Strategic Value:</u> To ensure customer requirements are incorporated in the systems engineering of information systems.	<u>Learning Objectives:</u> Knowledge of and ability to identify, specify, analyze and manage customers' functional and infrastructure requirements.		0 1 2 3 4	0 1 2 3 4	X	X	X	X		- DoD mission, organization and roles - DoD Components' (Services and Agencies) missions, organizations and roles - Unified Command structure, mission and roles - Mission support requirements - Analysis tools and methods - Customer requirements - Operations and logistics requirements
	<u>Developmental Opportunities:</u> Learning: - Attend course on Requirements Specification (E, I) - Information Resources Management College, Information Management Planning (all) Work-based: - Work on specification writing team (E, I, J)	<u>Gap Assessment:</u> <div style="text-align: center;"> _____ - _____ = _____ Required Proficiency - Current Proficiency = Gap </div> <u>Gap Mitigation Strategy:</u>								

Career Area: Information Management**Job Role: Performance Assessment**

6	Competency: Developmental Test & Evaluation (DT&E)	Proficiency:		Level:					Skill Topics:
		Current	Required	E	I	J	S	Ex	
<u>Strategic Value:</u> <i>To promote the development and acceptance of information systems to meet user requirements; to promote compliance with standards; to promote interoperability of standards compliant products in support of DON acquisition.</i>	<u>Learning Objectives:</u> Knowledge of and ability to analyze the technical characteristics, identify critical technical issues, and design, implement, execute and report results.	0 1 2 3 4	0 1 2 3 4	X	X	X	X		- DT&E - Standards conformance testing - Interoperability certification - Test coverage performance metrics - Product quality and performance assurance - Security test coverage performance metrics - Cryptography
	<u>Developmental Opportunities:</u> Learning: - Attend testing conferences, such as ITEA conference (I, J) - Attend courses on test design (E, I) - Information Resources Management College, Information Management Planning (all)	<u>Gap Assessment:</u> _____ - _____ = _____ Required Proficiency - Current Proficiency = Gap					<u>Gap Mitigation Strategy:</u> 		

Career Area: Information Management**Job Role: Performance Assessment**

7	Competency: Integrated Verification & Validation (IV&V)		Proficiency:		Level:					Skill Topics:										
			Current	Required	E	I	J	S	Ex											
<u>Strategic Value:</u> <i>To ensure that systems perform in accordance with specified requirements.</i>			<u>Learning Objectives:</u> Knowledge of and ability to formally verify and validate by means of inspection, analysis, simulation, demonstration and testing.		0	1	2	3	4	0	1	2	3	4	X	X	X	X		- System verification and validation - System performance inspection, analysis, simulation, demonstration and testing - Requirements tracking - Analysis and simulation - IV&V
<u>Developmental Opportunities:</u> Learning: - Attend testing conferences (I, J, S) - Information Resources Management College, Information Management Planning (all) Work-based: - Participate in IV&V testing (E, I)			<u>Gap Assessment:</u> _____ - _____ = _____ Required Proficiency - Current Proficiency = Gap <u>Gap Mitigation Strategy:</u>																	

Career Area: Information Management**Job Role: Performance Assessment**

8	Competency: Operational Test & Evaluation (OT&E)		Proficiency:		Level:					Skill Topics:
	Current	Required	E	I	J	S	Ex			
<u>Strategic Value:</u> <i>To plan, test and evaluate for the implementation of an information system from an operational viewpoint.</i>	0 1 2 3 4	0 1 2 3 4	X	X	X	X				
<u>Learning Objectives:</u> Knowledge of and ability to analyze operational and technical characteristics, identify critical operational issues, and define, document, implement, execute and report results.										
<u>Developmental Opportunities:</u> Learning: - Attend testing conferences, such as ITEA conference (I, J) - Attend courses on test design (E, I) - Information Resources Management College, Information Management Planning (all) Work-based: - Evaluation metrics used at other sites (all)	<u>Gap Assessment:</u> _____ - _____ = _____ Required Proficiency - Current Proficiency = Gap <u>Gap Mitigation Strategy:</u>									
- OT&E methods and tools - Technical performance processes - Operational characteristics analysis - Technical characteristics analysis, identification and definition - Critical operational issues identification - Test and Evaluation Master Plan (TEMP)										

Career Area: Information Management**Job Role: Performance Assessment**

9	Competency: Operations Research		Proficiency:		Level:					Skill Topics:								
	Current	Required	E	I	J	S	Ex											
<u>Strategic Value:</u> To assist customers in information systems assessment, planning, design, modifications, and strategy development.	<u>Learning Objectives:</u> Knowledge of and ability to perform design, trade off and cost benefit analysis, and to evaluate and optimize information systems.		0	1	2	3	4	0	1	2	3	4	X	X	X	X		- Modeling methods - Correlation analysis - Analysis of variance - Parameter estimation from statistical samples - Parametric and nonparametric test of significance - Principal component analysis - Monte-Carlo analysis - Analytical hierarchical process - Decision support - Bayesian inferencing - Automated statistical evaluation packages (e.g., SAS, SYSTAT, S-PLUS, SPSS, STATISTICA) - Graphical presentations/visualization - Spread sheet programs (e.g., Excel, 1-2-3) - Sampling theory
	<u>Developmental Opportunities:</u> Learning: - Attend courses in operations research (E, I) - Information Resources Management College, Information Management Planning (all)		<u>Gap Assessment:</u> <div style="text-align: center;"> _____ - _____ = _____ Required Proficiency - Current Proficiency = Gap </div> <u>Gap Mitigation Strategy:</u>															

Career Area: Information Management**Job Role: Performance Assessment**

10	Competency: Program Management	Proficiency:		Level:					Skill Topics:
		Current	Required	E	I	J	S	Ex	
<u>Strategic Value:</u> <i>To achieve the needed outcomes of a specific program and related projects by ensuring proper management, performance and administration.</i>	<u>Learning Objectives:</u> Knowledge of the required outcomes, functional and political environments, organizations, activities, and constraints affecting a program. Knowledge of project definition and the ability to: relate required results and costs; lead teams that include members not in one's chain of command; apply systematic thinking to develop action plans; develop approaches to satisfy requirements and resolve issues; and ensure overall project quality. A PM has the knowledge and ability to coordinate the work of assigned staff and other functional experts matrixed to support the task.	0 1 2 3 4	0 1 2 3 4			X	X	X	- Program strategic planning - Program role in organization/enterprise - Visionary leadership - Performance assessment - Project integration management - Quality management - Risk management - Financial management
	<u>Developmental Opportunities:</u> Learning: - Information Resources Management College: (I, J, S) --Information Management Planning --Information Technology Acquisition for the CIO --IT Project Management --IT Capital Planning - STAR Program (all) - DAWIA (all) Work-based: - Serve as Contracting Officer's Representative (J, S)	<u>Gap Assessment:</u> <div style="text-align: center;"> _____ - _____ = _____ Required Current Proficiency Proficiency Gap </div> <u>Gap Mitigation Strategy:</u>							

Career Area: Information Management**Job Role: Performance Assessment**

11	Competency: Contracting Officers Representative (COR)		Proficiency:		Level:					Skill Topics:
	Current	Required	E	I	J	S	Ex			
<u>Strategic Value:</u> <i>To ensure contractor performance and delivery is in compliance with a given contract.</i>	0 1 2 3 4	0 1 2 3 4		X	X	X				
<u>Learning Objectives:</u> Knowledge of and ability to make technical decisions within the scope of the contract/task; serve as the day-to-day point of contact for contractual matters; assess the technical quality of performed work; approve deliverables for acceptance.										
<u>Developmental Opportunities:</u> Learning: - STAR Program (all) - DAWIA (all)	<u>Gap Assessment:</u> _____ - _____ = _____ Required Proficiency - Current Proficiency = Gap <u>Gap Mitigation Strategy:</u>							- Deliverable item review and approval - Contract types (e.g., IDIQ, cost reimbursable, time and materials, firm fixed price) - Cost reporting - Contract rates - Delivery orders - Other direct costs (ODCs) - Contract Line Items (CLINs) - Contract milestones - Life cycle management - Statements of Work (SOW) - Contract options		

Career Area: Information Management**Job Role: Performance Assessment**

12	Competency: Information Assurance		Proficiency:		Level:					Skill Topics:
	Current	Required	E	I	J	S	Ex			
<p><u>Strategic Value:</u></p> <p>To acquire, maintain and ensure the security of information systems in an effective, interoperable, scalable, reliable, integrated and affordable fashion.</p>	<p><u>Learning Objectives:</u></p> <p>Knowledge of and ability to apply physical access controls, technical security countermeasures, classification and safeguarding of controlled information and operational & industrial security. Ability to validate that appropriate countermeasures are being integrated correctly into program and to ensure that assurance evidence that demonstrates that the system is secure are produced.</p>	<p>0 1 2 3 4</p>	<p>0 1 2 3 4</p>	X	X	X	X	X	<ul style="list-style-type: none"> - Information Systems Security - National Level IM/IT Policy - Trusted Systems - Discretionary and Mandatory Access Control - Identification and Authentication - Common criteria, DITSCAP - Assurance Evidence 	
	<p><u>Developmental Opportunities:</u></p> <p>Learning:</p> <ul style="list-style-type: none"> - NETg Technical Training Courses (all) <p>Work-based:</p> <ul style="list-style-type: none"> - Partnering with Industry (all) 		<p><u>Gap Assessment:</u></p> <p>_____ - _____ = _____</p> <p>Required Proficiency - Current Proficiency = Gap</p> <p><u>Gap Mitigation Strategy:</u></p>							

Career Area: Information Management**Job Role: Process Reengineering and Change Management**

1	Competency: Business Process Reengineering	Proficiency:		Level:					Skill Topics:
<u>Strategic Value:</u> To ensure the organization's methods and processes support enterprise IM/IT requirements, both cost and technical.	<u>Learning Objectives:</u> Knowledge of and ability to apply analytical methods and procedures to review and assess IM/IT processes and procedures to support the development and enhancement of administrative processes, procedures and organizations.	Current	Required	E	I	J	S	Ex	- Economic analysis principles - Activity-based costing - DoD and DON budget and procurement processes - BPR methodologies, metrics, tools and techniques - Automated information systems for specific computer projects - Plan and budgetary document development to support requirements
		0 1 2 3 4	0 1 2 3 4		X	X	X	X	
	<u>Developmental Opportunities:</u> Learning: - DoD BPR Certificate Program (all) - Information Resources Management College, Reengineering Organizational Processes (all) - Information Resources Management College, Information Measuring Results of Organizational Performance (all) - Information Resources Management College, Information Management Planning (all)	<u>Gap Assessment:</u> _____ - _____ = _____ Required Proficiency - Current Proficiency = Gap <u>Gap Mitigation Strategy:</u>							

Career Area: Information Management**Job Role: Process Reengineering and Change Management**

2	Competency: Business Development	Proficiency:		Level:					Skill Topics:
<u>Strategic Value:</u> To sustain the structure and operations of the organization within projected cost and revenue, and to ensure requirements for planned growth and technology insertion are met with adequate capital investment resources.	<u>Learning Objectives:</u> Knowledge of and ability to apply financial management, cost and revenue projections, business cases, plans, methods, practices, policies and procedures, industry trends and market surveys, justifications, approvals, determinations and findings.	Current	Required	E	I	J	S	Ex	- Marketing - Customer business requirements - Competitive proposal preparation and presentation - Customer service - Business case analysis
		0 1 2 3 4	0 1 2 3 4		X	X	X		
	<u>Developmental Opportunities:</u> Learning: - Managerial Accounting Course (all) - Financial management course (all) - Information Resources Management College, Reengineering Organizational Processes (all) - Information Resources Management College, Information Measuring Results of Organizational Performance (all) - Information Resources Management College, Information Management Planning (all)	<u>Gap Assessment:</u> _____ - _____ = _____ Required Proficiency - Current Proficiency = Gap <u>Gap Mitigation Strategy:</u>							

Career Area: Information Management**Job Role: Process Reengineering and Change Management**

3	Competency: Operations Research	Proficiency:					Level:					Skill Topics:					
<u>Strategic Value:</u> To assist customers in information systems assessment, planning, design, modifications, and strategy development.	<u>Learning Objectives:</u> Knowledge of and ability to perform design, trade off and cost benefit analysis, and to evaluate and optimize information systems.	Current					Required					E	I	J	S	Ex	<ul style="list-style-type: none">- Modeling methods- Correlation analysis- Analysis of variance- Parameter estimation from statistical samples- Parametric and nonparametric test of significance- Principal component analysis- Monte-Carlo analysis- Analytical hierarchical process-Decision support- Bayesian inferencing- Automated statistical evaluation packages (e.g., SAS, SYSTAT, S-PLUS, SPSS, STATISTICA)- Graphical presentations/visualization- Spread sheet programs (e.g., Excel, 1-2-3)- Sampling theory- Data structures- Scalability- Queuing theory
		0	1	2	3	4	0	1	2	3	4	X	X	X	X		
	<u>Developmental Opportunities:</u> Learning: <ul style="list-style-type: none">- Attend courses in operations research (E, I)- Information Resources Management College, Reengineering Organizational Processes (all)- Information Resources Management College, Information Measuring Results of Organizational Performance (all)- Information Resources Management College, Information Management Planning (all)	<u>Gap Assessment:</u> _____ - _____ = _____ Required Proficiency - Current Proficiency = Gap <u>Gap Mitigation Strategy:</u> 															

Career Area: Information Management**Job Role: Process Reengineering and Change Management**

4	Competency: Computer Systems Architecture	Proficiency:		Level:					Skill Topics:
<u>Strategic Value:</u> To provide secure information systems that are effective, interoperable, scalable, reliable, integrated and affordable.	<u>Learning Objectives:</u> Understanding of computer system components and their functions, including component interfaces and associated services.	Current	Required	E	I	J	S	Ex	<ul style="list-style-type: none">- Computer systems architecture- Computer operation- System design, including hardware components and configuration- Data interchange services- Database management- Distributed processing- Operating Systems- Networks- Systems software- Computer design, including hardware components, configuration and interface- Cryptographic equipment and systems- Specifications and uses of embedded computers
		0 1 2 3 4	0 1 2 3 4	X	X	X	X		
	<u>Developmental Opportunities:</u> Learning: <ul style="list-style-type: none">- Information Resources Management College, Information Management Planning (all)- Information Resources Management College, Managing Information Architectures and Infrastructures (all)	<u>Gap Assessment:</u> _____ - _____ = _____ Required Proficiency - Current Proficiency = Gap <u>Gap Mitigation Strategy:</u>							

Career Area: Information Management**Job Role: Process Reengineering and Change Management**

5	Competency: Info. Technology, Info. Mgmt., Knowledge Mgmt.	Proficiency:		Level:					Skill Topics:
		Current	Required	E	I	J	S	Ex	
<u>Strategic Value:</u> <i>To ensure organization information resources are strategic assets that will provide the backbone of DON decision-making needs by utilizing information and knowledge resources most effectively.</i>	<u>Learning Objectives:</u> Knowledge of and ability to manage information, knowledge, information technology and related resources according to Federal laws and DoD, DON regulations.	0 1 2 3 4	0 1 2 3 4			X	X	X	- Information management - Information resource management - Computing and Communications - IM/IT acquisition - Information resource management regulations, policies and procedures - Knowledge Management - Leadership - Performance assessment - Capital planning and investment - Technology advances - Strategic planning - Process/change management - IM/IT architecture - Information Assurance
	<u>Developmental Opportunities:</u> Learning: - Information Resources Management College, CIO Certificate Program (J, S, Ex) - Federal CIO Council, CIO University (S, Ex)	<u>Gap Assessment:</u> <div style="display: flex; justify-content: space-between; width: 100%;"> _____ - _____ = _____ </div> <div style="display: flex; justify-content: space-between; width: 100%;"> Required Proficiency - Current Proficiency = Gap </div> <u>Gap Mitigation Strategy:</u>							

Career Area: Information Management**Job Role: Process Reengineering and Change Management**

6	Competency: Computer Aided Software Engineering (CASE)	Proficiency:		Level:					Skill Topics:
<u>Strategic Value:</u> To automate, test and evaluate portions of the software and system development life-cycle in order to ensure sound engineering principles throughout the entire computer system life cycle (e.g., requirements analysis, systems development, reengineering, software development, operational testing, and maintenance).	<u>Learning Objectives:</u> Knowledge of and ability to apply DoD and DON approved automated tools and methodologies for software engineering.	Current	Required	E	I	J	S	Ex	- DoD Integrated CASE tools - CASE methodologies - BPA/BPE/BPR
		0 1 2 3 4	0 1 2 3 4	X	X	X	X		
	<u>Developmental Opportunities:</u> Learning: - Information Resources Management College, Information Management Planning (all)	<u>Gap Assessment:</u> _____ - _____ = _____ Required Proficiency - Current Proficiency = Gap <u>Gap Mitigation Strategy:</u>							

Career Area: Information Management**Job Role: Process Reengineering and Change Management**

7	Competency: Software Development		Proficiency:		Level:					Skill Topics:
			Current	Required	E	I	J	S	Ex	
Strategic Value: <i>To ensure that software being developed meets requirements, is maintainable, on schedule and within cost.</i>	Learning Objectives: Knowledge of and ability to apply traditional and emerging design methodologies and programming services for developing software products and systems.		0 1 2 3 4	0 1 2 3 4	X	X	X	X		- DoD policies and guidelines - Database architecture and DBMS - Configuration management - Network architecture and software - Open systems and standards - CASE methodology and tools - Operating systems - Programming languages and coding - Object-oriented technology - Software testing - Quality assurance - Business Process Reengineering - Software reuse - Software metrics
	Developmental Opportunities: Learning: - Classes on programming languages (E, I, J) - Classes in Software engineering (E, I, J) - Class in capability maturity model (E, I, J) - Information Resources Management College, Information Management Planning (all) Work-based: - Participate in in-house software development project (E, I) - Lead in house software development team (J)	Gap Assessment: _____ - _____ = _____ Required Proficiency - Current Proficiency = Gap Gap Mitigation Strategy:								

Career Area: Information Management**Job Role: Process Reengineering and Change Management**

8	Competency: Policy Development and Implementation		Proficiency:		Level:					Skill Topics:											
			Current	Required	E	I	J	S	Ex												
<u>Strategic Value:</u> To develop and assist in the implementation of departmental policy and strategic plans regarding DON, DoD and Federal Government legislative mandates (i.e., Congressional Directives, Executive Orders, and policies relating to IM/IT).			<u>Learning Objectives:</u> Knowledge of and ability to apply IM/IT concepts, principles, practices, plans, procedures, policies, standards and operational requirements both internal and external to the DON (e.g., at the Joint Staff level) necessary to develop or modify IM/IT policy.		0	1	2	3	4	0	1	2	3	4							- Commercial, Federal and Military standards - Operational procedures - Operational doctrine - Policy directives - Policy development - Interoperability deficiencies - Migration/integration initiatives - DoD security - Strategic Planning
			<u>Developmental Opportunities:</u> Learning: - Information Resources Management College, Information Management Planning (all) Work-based: - Serve in an policy organization as a staff action officer (J)		<u>Gap Assessment:</u> _____ - _____ = _____ Required Proficiency - Current Proficiency = Gap <u>Gap Mitigation Strategy:</u>																

Career Area: Information Management**Job Role: Process Reengineering and Change Management**

9	Competency: Organizational Development		Proficiency:		Level:					Skill Topics:	
			Current	Required	E	I	J	S	Ex		
Strategic Value: <i>To assess, develop and implement business practices that improve organizational effectiveness.</i>	Learning Objectives: Knowledge of the principles of organizational development and change management theories and ability to apply them in an information technology environment.	0 1 2 3 4 0 1 2 3 4				X	X	X		- Change management - Business process reengineering - Best practices - Human resource management - IT education and training - Workforce development	
	Developmental Opportunities: Learning: - Information Resources Management College, Information Management Planning (all)	Gap Assessment: _____ - _____ = _____ Required Proficiency - Current Proficiency = Gap									
		Gap Mitigation Strategy:									

Career Area: Information Management**Job Role: Process Reengineering and Change Management**

10	Competency: Enterprise Resource Planning		Proficiency:		Level:					Skill Topics:
			Current	Required	E	I	J	S	Ex	
Strategic Value: <i>To enable organizations to unify disparate enterprise information systems (e.g., financial, human resources, supply chain management) into one comprehensive application.</i>	Learning Objectives: Knowledge of and ability to enable communication between multiple enterprise applications and platforms.	0 1 2 3 4	0 1 2 3 4		X	X	X	X		- Visioning - Requirements analysis - Feasibility studies - Life-cycle cost estimates - Commercial vendor assessments - Finance strategies - ERP software procurement - Implementation strategies - IV&V - Outcome-based performance measurement
	Developmental Opportunities: Learning: - Information Resources Management College, Information Management Planning (all)	Gap Assessment: <div style="display: flex; justify-content: space-around; align-items: center;"> <div>_____</div> <div>-</div> <div>_____</div> <div>=</div> <div>_____</div> </div> <div style="display: flex; justify-content: space-around; align-items: center; margin-top: 10px;"> <div>Required Proficiency</div> <div>-</div> <div>Current Proficiency</div> <div>=</div> <div>Gap</div> </div> Gap Mitigation Strategy:								

Career Area: Information Management**Job Role: Process Reengineering and Change Management**

11	Competency: Program Management	Proficiency:		Level:					Skill Topics:
<u>Strategic Value:</u> To achieve the needed outcomes of a specific program and related projects by ensuring proper management, performance and administration.	<u>Learning Objectives:</u> Knowledge of the required outcomes, functional and political environments, organizations, activities, and constraints affecting a program. Knowledge of project definition and the ability to: relate required results and costs; lead teams that include members not in one's chain of command; apply systematic thinking to develop action plans; develop approaches to satisfy requirements and resolve issues; and ensure overall project quality. A PM has the knowledge and ability to coordinate the work of assigned staff and other functional experts matrixed to support the task.	Current	Required	E	I	J	S	Ex	- Program strategic planning - Program role in organization/enterprise - Visionary leadership - Performance assessment - Project integration management - Quality management - Risk management - Financial management
		0 1 2 3 4	0 1 2 3 4			X	X	X	
	<u>Developmental Opportunities:</u> Learning: - Information Resources Management College: (I, J, S) --Information Management Planning --Information Technology Acquisition for the CIO --IT Project Management --IT Capital Planning - STAR Program (all) - DAWIA (all) Work-based: - Serve as Contracting Officer's Representative (J, S)	<u>Gap Assessment:</u> _____ - _____ = _____ Required Proficiency - Current Proficiency = Gap <u>Gap Mitigation Strategy:</u>							

Career Area: Information Management**Job Role: Process Reengineering and Change Management**

12	Competency: Contracting Officers Representative (COR)		Proficiency:		Level:					Skill Topics:
			Current	Required	E	I	J	S	Ex	
<u>Strategic Value:</u> <i>To ensure contractor performance and delivery is in compliance with a given contract.</i>	<u>Learning Objectives:</u> Knowledge of and ability to make technical decisions within the scope of the contract/task; serve as the day-to-day point of contact for contractual matters; assess the technical quality of performed work; approve deliverables for acceptance.		0 1 2 3 4	0 1 2 3 4		X	X	X		- Deliverable item review and approval - Contract types (e.g., IDIQ, cost reimbursable, time and materials, firm fixed price) - Cost reporting - Contract rates - Delivery orders - Other direct costs (ODCs) - Contract Line Items (CLINs) - Contract milestones - Life cycle management - Statements of Work (SOW) - Contract options
	<u>Developmental Opportunities:</u> Learning: - STAR Program (all) - DAWIA (all)	<u>Gap Assessment:</u> <div style="text-align: center;"> _____ - _____ = _____ Required Proficiency - Current Proficiency = Gap </div> <u>Gap Mitigation Strategy:</u>								

Career Area: Information Management**Job Role: Process Reengineering and Change Management**

13	Competency: Information Assurance	Proficiency:					Level:					Skill Topics:					
<u>Strategic Value:</u> To acquire, maintain and ensure the security of information systems in an effective, interoperable, scalable, reliable, integrated and affordable fashion.	<u>Learning Objectives:</u> Knowledge of and ability to apply physical access controls, technical security countermeasures, classification and safeguarding of controlled information and operational & industrial security. Ability to validate that appropriate countermeasures are being integrated correctly into program and to ensure that assurance evidence that demonstrates that the system is secure are produced.	Current					Required					E	I	J	S	Ex	- Information Systems Security - National Level IM/IT Policy - Trusted Systems - Discretionary and Mandatory Access Control - Identification and Authentication - Common criteria, DITSCAP - Assurance Evidence
		0	1	2	3	4	0	1	2	3	4	X	X	X	X	X	
	<u>Developmental Opportunities:</u> Learning: - NETg Technical Training Courses (all) Work-based: - Partnering with Industry (all)	<u>Gap Assessment:</u> _____ - _____ = _____ Required Proficiency - Current Proficiency = Gap <u>Gap Mitigation Strategy:</u>															

Career Area: Information Management**Job Role: Records Management**

1	Competency: Configuration Management	Proficiency:		Level:					Skill Topics:
<u>Strategic Value:</u> To provide positive control of system configuration to ensure system interoperability.	<u>Learning Objectives:</u> Knowledge of and ability to provide technical and administrative direction and surveillance to formally document and control the functional and physical characteristics of a system, network or product, including its requirements, design, software, hardware, documentation and release during the system's life cycle.	Current	Required	E	I	J	S	Ex	- Configuration management and control methods and procedures - Change management process - Development management - Implementation management - Telecommunications systems - Mission support software - Operational concepts
		0 1 2 3 4	0 1 2 3 4	X	X	X	X		
	<u>Developmental Opportunities:</u> Learning: - Attend formal CM training (E, I) - Attend CM conferences (I, J, S) - Information Resources Management College, Information Management Planning (all) Work-based: - Participate in writing of CM plan (I, J) - Participate in a CM audit (I, J) - Serve on a configuration control board (I, J) - Attend a CCB meeting (E)	<u>Gap Assessment:</u> _____ - _____ = _____ Required Proficiency - Current Proficiency = Gap <u>Gap Mitigation Strategy:</u>							

Career Area: Information Management**Job Role: Records Management**

2	Competency: Asset Management		Proficiency:		Level:					Skill Topics:	
			Current	Required	E	I	J	S	Ex		
Strategic Value: <i>To manage the inventory of DON and organization IM/IT assets for DON programs and operations.</i>	Learning Objectives: Knowledge of and ability to apply methods and procedures to identify, purchase, distribute, and maintain IM/IT assets.	0 1 2 3 4 0 1 2 3 4	X	X	X					- Asset management - State-of-the-art planning strategies - IM/IT technologies - IM/IT resource utilization - Acquisition packages	
	Developmental Opportunities: Learning: - Information Resources Management College, Information Management Planning (all)	Gap Assessment: _____ - _____ = _____ Required Proficiency - Current Proficiency = Gap									
		Gap Mitigation Strategy:									

Career Area: Information Management**Job Role: Records Management**

3	Competency: Info. Technology, Info. Mgmt., Knowledge Mgmt.	Proficiency:		Level:					Skill Topics:
		Current	Required	E	I	J	S	Ex	
<u>Strategic Value:</u> <i>To ensure organization information resources are strategic assets that will provide the backbone of DON decision-making needs by utilizing information and knowledge resources most effectively.</i>	<u>Learning Objectives:</u> Knowledge of and ability to manage information, knowledge, information technology and related resources according to Federal laws and DoD, DON regulations.	0 1 2 3 4	0 1 2 3 4			X	X	X	- Information management - Information resource management - Computing and Communications - IM/IT acquisition - Information resource management regulations, policies and procedures - Knowledge Management - Leadership - Performance assessment - Capital planning and investment - Technology advances - Strategic planning - Process/change management - IM/IT architecture - Information Assurance
	<u>Developmental Opportunities:</u> Learning: - Information Resources Management College, CIO Certificate Program (J, S, Ex) - Federal CIO Council, CIO University (S, Ex)	<u>Gap Assessment:</u> <div style="text-align: center;"> _____ - _____ = _____ Required Proficiency - Current Proficiency = Gap </div>							
		<u>Gap Mitigation Strategy:</u>							

Career Area: Information Management**Job Role: Records Management**

4	Competency: Data Maintenance	Proficiency:		Level:					Skill Topics:
<u>Strategic Value:</u> To oversee the maintenance and management of data across the enterprise and be responsible for central information planning and control	<u>Learning Objectives:</u> Knowledge of and ability to develop and maintain a data architecture and provide the basis for the incremental, ordered design and development of systems based on successively more detailed levels of data modeling	Current	Required	E	I	J	S	Ex	- DoD Data Administration - DII COE Shared Data Environment (SHADE) - C4ISR Core Architecture Data Model (CADM) - Commercial business practices (e.g., Enterprise Resource Planning)
		0 1 2 3 4	0 1 2 3 4	X	X	X			
	<u>Developmental Opportunities:</u> Learning: - Information Resources Management College, Information Management Planning (all) - Information Resources Management College, Data Management Strategies and Technologies: A Managerial Perspective (all)	<u>Gap Assessment:</u> _____ - _____ = _____ Required Proficiency - Current Proficiency = Gap <u>Gap Mitigation Strategy:</u>							

Career Area: Information Management**Job Role: Records Management**

5	Competency: Information Sciences	Proficiency:		Level:						Skill Topics:							
<u>Strategic Value:</u> To provide high quality library and information services to the DON enterprise.	<u>Learning Objectives:</u> Knowledge of and ability to manage, plan, organize and promote digital and virtual libraries, websites and other IM/IT information resources.	Current					Required					E	I	J	S	Ex	- Digital library policy - Copyrighting and works of authorship - DoD and DON libraries - Disaster preparedness and preparation - E-magazines - Listservs, forums and websites - Professional competencies and standards - Information sciences technologies, including authentication, automation, digital and virtual libraries, and metadata and information organization) - Knowledge management
		0	1	2	3	4	0	1	2	3	4	X	X	X	X		
	<u>Developmental Opportunities:</u> Learning: - Information Resources Management College, Information Management Planning (all) - Information Resources Management College, The Information Highway (all)	<u>Gap Assessment:</u> _____ - _____ = _____ Required Proficiency - Current Proficiency = Gap <u>Gap Mitigation Strategy:</u>															

Career Area: Information Management**Job Role: Records Management**

6 Competency: Document Management		Proficiency:		Level:					Skill Topics:
		Current	Required	E	I	J	S	Ex	
<u>Strategic Value:</u> <i>The storage, retrieval, tracking, and administration of documents within an organization.</i>	<u>Learning Objectives:</u> Knowledge of and ability to provide users with automated tools and services to access electronic documents incorporating multiple formats.	0 1 2 3 4	0 1 2 3 4	X	X	X			- Word processing files and applications - Electronic documents, compound documents - Spreadsheet applications - Graphics, audio, video, bitmapped images
	<u>Developmental Opportunities:</u> Learning: - Information Resources Management College, Information Management Planning (all)	<u>Gap Assessment:</u> _____ - _____ = _____ Required Proficiency - Current Proficiency = Gap <u>Gap Mitigation Strategy:</u>							

Career Area: Information Management**Job Role: Records Management**

7	Competency: Program Management	Proficiency:		Level:					Skill Topics:
		Current	Required	E	I	J	S	Ex	
<u>Strategic Value:</u> To achieve the needed outcomes of a specific program and related projects by ensuring proper management, performance and administration.	<u>Learning Objectives:</u> Knowledge of the required outcomes, functional and political environments, organizations, activities, and constraints affecting a program. Knowledge of project definition and the ability to: relate required results and costs; lead teams that include members not in one's chain of command; apply systematic thinking to develop action plans; develop approaches to satisfy requirements and resolve issues; and ensure overall project quality. A PM has the knowledge and ability to coordinate the work of assigned staff and other functional experts matrixed to support the task.	0 1 2 3 4	0 1 2 3 4			X	X	X	- Program strategic planning - Program role in organization/enterprise - Visionary leadership - Performance assessment - Project integration management - Quality management - Risk management - Financial management
	<u>Developmental Opportunities:</u> Learning: - Information Resources Management College: (I, J, S) --Information Management Planning --Information Technology Acquisition for the CIO --IT Project Management --IT Capital Planning - STAR Program (all) - DAWIA (all) Work-based: - Serve as Contracting Officer's Representative (J, S)	<u>Gap Assessment:</u> _____ - _____ = _____ Required Proficiency - Current Proficiency = Gap <u>Gap Mitigation Strategy:</u>							

Career Area: Information Management**Job Role: Records Management**

8	Competency: Contracting Officers Representative (COR)		Proficiency:		Level:					Skill Topics:
			Current	Required	E	I	J	S	Ex	
Strategic Value: <i>To ensure contractor performance and delivery is in compliance with a given contract.</i>	Learning Objectives: Knowledge of and ability to make technical decisions within the scope of the contract/task; serve as the day-to-day point of contact for contractual matters; assess the technical quality of performed work; approve deliverables for acceptance.	0 1 2 3 4	0 1 2 3 4		X	X	X			- Deliverable item review and approval - Contract types (e.g., IDIQ, cost reimbursable, time and materials, firm fixed price) - Cost reporting - Contract rates - Delivery orders - Other direct costs (ODCs) - Contract Line Items (CLINs) - Contract milestones - Life cycle management - Statements of Work (SOW) - Contract options
	Developmental Opportunities: Learning: - STAR Program (all) - DAWIA (all)	Gap Assessment: <div style="text-align: center;"> _____ - _____ = _____ Required Proficiency - Current Proficiency = Gap </div>					Gap Mitigation Strategy: 			

Career Area: Information Management**Job Role: Records Management**

9	Competency: Information Assurance		Proficiency:		Level:					Skill Topics:
			Current	Required	E	I	J	S	Ex	
Strategic Value: <i>To acquire, maintain and ensure the security of information systems in an effective, interoperable, scalable, reliable, integrated and affordable fashion.</i>	Learning Objectives: Knowledge of and ability to apply physical access controls, technical security countermeasures, classification and safeguarding of controlled information and operational & industrial security. Ability to validate that appropriate countermeasures are being integrated correctly into program and to ensure that assurance evidence that demonstrates that the system is secure are produced.	0 1 2 3 4 0 1 2 3 4	X	X	X	X	X		- Information Systems Security - National Level IM/IT Policy - Trusted Systems - Discretionary and Mandatory Access Control - Identification and Authentication - Common criteria, DITSCAP - Assurance Evidence	
	Developmental Opportunities: Learning: - NETg Technical Training Courses (all) Work-based: - Partnering with Industry (all)	Gap Assessment: <div style="text-align: center;"> _____ - _____ = _____ Required Current Proficiency Proficiency Gap </div> Gap Mitigation Strategy:								

Career Area: Information Management**Job Role: Strategic Planning**

1	Competency: Policy/Strategic Plan Development and Implementation	Proficiency:		Level:					Skill Topics:
		Current	Required	E	I	J	S	Ex	
Strategic Value: <i>To develop and assist in the implementation of departmental policy and strategic plans regarding DON, DoD and Federal Government legislative mandates (i.e., Congressional Directives, Executive Orders, and policies relating to information</i>	Learning Objectives: Knowledge of and ability to apply information technology concepts, principles, practices, procedures, policies, standards and operational requirements both internal and external to the DON (e.g., at the Joint Staff level) necessary to develop or modify IT strategic plans and/or policy.	0 1 2 3 4	0 1 2 3 4			X	X	X	- Commercial, Federal and Military standards - Operational procedures - Operational doctrine - C4I issues - Policy directives - Policy development - Interoperability deficiencies - Migration/integration initiatives - DoD security - Strategic Planning
	Developmental Opportunities: Learning: - Information Resources Management College, Information Management Planning (all) Work-based: - Serve in an policy organization as a staff action officer (J)	Gap Assessment: <div style="display: flex; justify-content: space-between; width: 100%;"> _____ - _____ = _____ </div> <div style="display: flex; justify-content: space-between; width: 100%;"> Required Proficiency - Current Proficiency = Gap </div> Gap Mitigation Strategy:							

Career Area: Information Management**Job Role: Strategic Planning**

2	Competency: Policy Assessment	Proficiency:		Level:					Skill Topics:
		Current	Required	E	I	J	S	Ex	
Strategic Value: <i>To assess and accommodate military and civilian agency IM/IT requirements and the ability to assess interoperability deficiencies in the implementation of mitigation/integration initiatives for information systems.</i>	Learning Objectives: Knowledge of and ability to analyze, plan, schedule, coordinate and develop legislation or policy issuances that direct the course of IM/IT programs across organizational lines within Federal agencies or other organizations involved in providing IM/IT services for the Federal Government.	0 1 2 3 4	0 1 2 3 4		X	X	X		- Interoperability deficiencies - Migration - Operational procedures - Operational doctrine - DoD security - Data handling - Information systems networks - Policy directives
	Developmental Opportunities: Learning: - Information Resources Management College, Information Management Planning (all) Work-based: - Serve in an policy organization as a staff action officer (J)	Gap Assessment: _____ - _____ = _____ Required Proficiency - Current Proficiency = Gap Gap Mitigation Strategy:							

Career Area: Information Management**Job Role: Strategic Planning**

3 Competency: Business Development		Proficiency:		Level:					Skill Topics:
		Current	Required	E	I	J	S	Ex	
<u>Strategic Value:</u> To sustain the structure and operations of the organization within projected cost and revenue, and to ensure requirements for planned growth and technology insertion are met with adequate capital investment resources.	<u>Learning Objectives:</u> Knowledge of and ability to apply financial management, cost and revenue projections, business cases, plans, methods, practices, policies and procedures, industry trends and market surveys, justifications, approvals, determinations and findings.	0 1 2 3 4	0 1 2 3 4		X	X	X		- Marketing - Customer business requirements - Competitive proposal preparation and presentation - Customer service - Business case analysis
	<u>Developmental Opportunities:</u> Learning: - Managerial Accounting Course (all) - Financial management course (all) - Information Resources Management College, Information Management Planning (all)	<u>Gap Assessment:</u> <div style="text-align: center;"> _____ - _____ = _____ Required Proficiency - Current Proficiency = Gap </div> <u>Gap Mitigation Strategy:</u>							

Career Area: Information Management**Job Role: Strategic Planning**

4	Competency: Business Process Reengineering	Proficiency:		Level:					Skill Topics:									
<u>Strategic Value:</u> To ensure the organization's methods and processes support customer requirements, both cost and technical.	<u>Learning Objectives:</u> Knowledge of and ability to apply analytical methods and procedures to review and assess information management processes and procedures to support the development and enhancement of administrative processes, procedures and organizations.	Current		Required		E	I	J	S	Ex	<div>- Economic analysis principles</div> <div>- Activity-based costing</div> <div>- DoD and DON budget and procurement processes</div> <div>- BPR methodologies, metrics, tools and techniques</div> <div>- Automated information systems for specific computer projects</div> <div>- Plan and budgetary document development to support requirements</div>							
		0	1	2	3	4	0	1	2	3		4						
	<u>Developmental Opportunities:</u> Developmental Opportunities: Learning: <div>- DoD BPR Certificate Program (all)</div> <div>- Information Resources Management College, Reengineering Organizational Processes (all)</div> <div>- Information Resources Management College, Information Measuring Results of Organizational Performance (all)</div> <div>- Information Resources Management College, Information Management Planning (all)</div>	<u>Gap Assessment:</u> <div><div></div> - <div></div> = <div></div></div> <div>Required Proficiency - Current Proficiency = Gap</div> <u>Gap Mitigation Strategy:</u>																

Career Area: Information Management**Job Role: Strategic Planning**

5	Competency: Business/Financial Management	Proficiency:		Level:					Skill Topics:
<u>Strategic Value:</u> To provide financial planning and budgeting, fiscal management, financial analysis and reporting, and accounting support for DON IM/IT programs.	<u>Learning Objectives:</u> Knowledge of and ability to develop budgets, prepare data for POM submission, analyze and assess program performance, and apply financial performance metrics.	Current	Required	E	I	J	S	Ex	<ul style="list-style-type: none">- Budget development- DoD PPBS/POM preparation- Program executability analysis- Affordability assessment- Resource allocation/optimization- Documentation preparation- Shortfall identification/tracking- Risk mitigation strategy development- Project baseline preparation- Trend analysis and forecasting- Accounting financial systems
		0 1 2 3 4	0 1 2 3 4	X	X	X	X		
	<u>Developmental Opportunities:</u> Learning: <ul style="list-style-type: none">- Information Resources Management College, Information Management Planning (all)- Information Resources Management College, IT Capital Planning (all)- University/commercially available business, finance and accounting courses (all)	<u>Gap Assessment:</u> _____ - _____ = _____ Required Proficiency - Current Proficiency = Gap <u>Gap Mitigation Strategy:</u>							

Career Area: Information Management**Job Role: Strategic Planning**

6	Competency: Info. Technology, Info. Mgmt., Knowledge Mgmt.	Proficiency:		Level:					Skill Topics:
		Current	Required	E	I	J	S	Ex	
<u>Strategic Value:</u> <i>To ensure organization information resources are strategic assets that will provide the backbone of DON decision-making needs by utilizing information and knowledge resources most effectively.</i>	<u>Learning Objectives:</u> Knowledge of and ability to manage information, knowledge, information technology and related resources according to Federal laws and DoD, DON regulations.	0 1 2 3 4	0 1 2 3 4			X	X	X	- Information management - Information resource management - Computing and Communications - IM/IT acquisition - Information resource management regulations, policies and procedures - Knowledge Management - Leadership - Performance assessment - Capital planning and investment - Technology advances - Strategic planning - Process/change management - IM/IT architecture - Information Assurance
	<u>Developmental Opportunities:</u> Learning: - Information Resources Management College, CIO Certificate Program (J, S, Ex) - Federal CIO Council, CIO University (S, Ex)	<u>Gap Assessment:</u> <div style="text-align: center;"> _____ - _____ = _____ Required Proficiency - Current Proficiency = Gap </div>							
		<u>Gap Mitigation Strategy:</u>							

Career Area: Information Management**Job Role: Strategic Planning**

7	Competency: Program Management	Proficiency:		Level:					Skill Topics:	
<u>Strategic Value:</u> To achieve the needed outcomes of a specific program and related projects by ensuring proper management, performance and administration.	<u>Learning Objectives:</u> Knowledge of the required outcomes, functional and political environments, organizations, activities, and constraints affecting a program. Knowledge of project definition and the ability to: relate required results and costs; lead teams that include members not in one's chain of command; apply systematic thinking to develop action plans; develop approaches to satisfy requirements and resolve issues; and ensure overall project quality. A PM has the knowledge and ability to coordinate the work of assigned staff and other functional experts matrixed to support the task.	Current	Required	E	I	J	S	Ex	<ul style="list-style-type: none">- Program strategic planning- Program role in organization/enterprise- Visionary leadership- Performance assessment- Project integration management- Quality management- Risk management- Financial management	
		0 1 2 3 4	0 1 2 3 4				X	X		X
	<u>Developmental Opportunities:</u> Learning: <ul style="list-style-type: none">- Information Resources Management College: (I, J, S)<ul style="list-style-type: none">--Information Management Planning--Information Technology Acquisition for the CIO--IT Project Management--IT Capital Planning- STAR Program (all)- DAWIA (all) Work-based: <ul style="list-style-type: none">- Serve as Contracting Officer's Representative (J, S)	<u>Gap Assessment:</u> _____ - _____ = _____ Required Proficiency - Current Proficiency = Gap <u>Gap Mitigation Strategy:</u>								

Career Area: Information Management**Job Role: Strategic Planning**

8	Competency: Contracting Officers Representative (COR)		Proficiency:		Level:					Skill Topics:
			Current	Required	E	I	J	S	Ex	
<u>Strategic Value:</u> <i>To ensure contractor performance and delivery is in compliance with a given contract.</i>	<u>Learning Objectives:</u> Knowledge of and ability to make technical decisions within the scope of the contract/task; serve as the day-to-day point of contact for contractual matters; assess the technical quality of performed work; approve deliverables for acceptance.		0 1 2 3 4	0 1 2 3 4		X	X	X		- Deliverable item review and approval - Contract types (e.g., IDIQ, cost reimbursable, time and materials, firm fixed price) - Cost reporting - Contract rates - Delivery orders - Other direct costs (ODCs) - Contract Line Items (CLINs) - Contract milestones - Life cycle management - Statements of Work (SOW) - Contract options
	<u>Developmental Opportunities:</u> Learning: - STAR Program (all) - DAWIA (all)	<u>Gap Assessment:</u> <div style="text-align: center;"> _____ - _____ = _____ Required Proficiency - Current Proficiency = Gap </div> <u>Gap Mitigation Strategy:</u>								

Knowledge Management Career Area

Job Roles

The job roles in the Knowledge Management Career Area include the following competencies:

❖ **Chief Knowledge Officer (CKO)**

Definition: manages the knowledge sharing process at the command level; leads efforts to move the organization to knowledge centrality; requires a dedication to KM principles, the ability to discuss the benefits of knowledge sharing, and the vision to ensure that KM initiatives are adopted by the organization; ensures that the best, relevant information for the area of practice is accessible to all personnel and implements the knowledge sharing strategy in alignment with command guidelines; champions cross-organizational communities of practice, forms relationship with HR, IT, librarian, organizational learning; establishes incentive programs for knowledge sharing and re-use; fosters cultural change; defines roles, skill-set, and opportunities for knowledge workers and facilitates training and education of knowledge workers.

1. Architecture
2. Knowledge Base Development
3. eBusiness/Electronic Data Interchange
4. Learning Environment Management
5. Knowledge Sharing/Reuse
6. Performance Metrics
7. KM Concept/Strategy
8. Policy/Strategic Plan Development and Implementation
9. KM Cultural Transformation
10. Information Resource Management
11. Enterprise Resource Planning
12. KM Ethical and Legal Issues
13. Business Process Reengineering
14. Facilitation and Arbitration
15. Systems Thinking
16. Leading People
17. Business Acumen
18. Building Coalition/Communication
19. KM Program/Project Management
20. Knowledge Life Cycle Management
21. Knowledge Mapping
22. Knowledge Transfer

❖ **Knowledge Manager (KM)**

Definition: works with the Chief Knowledge Officer to implement KM initiatives; manages KM efforts; looks across KM processes to capture tacit and explicit knowledge and often balances technology, information, processes, and individual and organizational learning within a culture of shared values. Creates ways to maintain a sustainable competitive advantage.

1. Architecture
2. Knowledge Base Development
3. E-Business/Electronic Data Interchange
4. Content Integration
5. Learning Environment Management
6. Knowledge Sharing/Reuse
7. Performance Metrics
8. KM Concept/Strategy
9. Policy/Strategic Plan Development and Implementation
10. KM Cultural Transformation
11. Information Resource Management
12. Enterprise Resource Planning
13. KM Ethical and Legal Issues
14. Business Process Reengineering
15. Facilitation and Arbitration
16. Systems Thinking
17. Communities of Practice
18. KM Program/Project Management
19. Decision Science
20. Leading People
21. Business Acumen
22. Building Coalition/Communication
23. Knowledge Life Cycle Management
24. Knowledge Mapping
25. Knowledge Transfer

❖ ***Knowledge Systems Engineer (KSE)***

Definition: turns KM ideas into workable solutions by engineering appropriate knowledge sharing Internet/intranet sites, rules based systems, portals, databases, etc. Requires intimate knowledge of the systems, architectures, technologies, standards, and protocols for KM. Ensures performance of the KCO is optimized through utilization of KM tools and systems thinking applications.

1. Systems Integration
2. Network Security
3. Architecture
4. Web Development for KM
5. Knowledge Base Development
6. Software Development
7. E-Business/Electronic Data Interchange
8. Content Integration
9. Learning Environment Management
10. Social Network Analysis
11. KM Concept/Strategy
12. Business Process Reengineering
13. Systems Thinking
14. Decision Science
15. Building Coalition/Communication

❖ **Knowledge Process Manager (KPM)**

Definition: focuses on the organization's KM and content integration processes; manages the efforts of the Knowledge Transfer Engineer, Knowledge Research Engineer, and Knowledge Life-Cycle Engineer. Develops process models for optimal organizational effectiveness.

1. Knowledge Transfer
2. Content Integration
3. Knowledge Life Cycle Management
4. Knowledge Mapping
5. Learning Environment Management
6. Knowledge Sharing/Reuse
7. Social Network Analysis
8. KM Concept/Strategy
9. KM Cultural Transformation
10. Systems Thinking
11. KM Program/Project Management

❖ **Knowledge Transfer Engineer (KTE)**

Definition: captures and codifies tacit knowledge, making it available for re-use; connects people to one another to enable the transfer of tacit knowledge to explicit knowledge. This job role is not considered inherently governmental.

1. Knowledge Transfer
2. Content Integration
3. Knowledge Mapping
4. Knowledge Sharing/Reuse
5. Social Network Analysis
6. KM Concept/Strategy
7. KM Cultural Transformation
8. Systems Thinking
9. Communities of Practice

❖ **Knowledge Research Engineer (KRE)**

Definition: creates explicit knowledge from available resources and integrates content in KM systems into easily accessible knowledge for decision makers. While this job offers the opportunity for growth into managerial positions, this job role is not necessarily inherently governmental.

1. Content Integration
2. Knowledge Life Cycle Management
3. Knowledge Mapping
4. Knowledge Sharing/Reuse
5. Social Network Analysis
6. KM Concept/Strategy
7. KM Cultural Transformation
8. Systems Thinking

❖ ***Knowledge Life Cycle Engineer (KLE)***

Definition: applies the rules and procedures that ensure the appropriate refresh and currency of information in a knowledge system; determines information birth and death for the KCO.

1. Content Integration
2. Knowledge Life Cycle Management
3. Knowledge Mapping
4. Knowledge Sharing/Reuse
5. Social Network Analysis
6. KM Concept/Strategy
7. KM Cultural Transformation
8. Systems Thinking
9. KM Program/Project Management

❖ ***Knowledge Community Leader (KCL)***

Definition: facilitates communities of practice across organizations to foster innovation, improved performance and collaboration; requires facilitation skills to ensure change initiatives are supported.

1. Web Development for KM
2. Knowledge Transfer
3. Content Integration
4. Knowledge Life Cycle Management
5. Knowledge Mapping
6. Learning Environment Management
7. Knowledge Sharing/Reuse
8. Social Network Analysis
9. Performance Metrics
10. KM Concept/Strategy
11. Business Process Reengineering
12. Facilitation and Arbitration
13. Systems Thinking
14. Communities of Practice
15. Leading People
16. Building Coalition/Communication

❖ ***Intellectual Capital Manager (ICM)***

Definition: develops the enterprise workforce; ensures the human capital aspects of KM are fully integrated; uses KM to increase the performance of the organization, the learning of the organization and identifies gaps in KM competencies.

1. Learning Environment Management
2. Knowledge Sharing/Reuse
3. KM Concept/Strategy
4. Information Resource Management
5. Enterprise Resource Planning
6. Systems Thinking
7. Leading People
8. Business Acumen

❖ **Performance Measurement Engineer (PME)**

Definition: measures and assesses the KCO model implementation and architecture. Performs analysis, develops a predictive model, shows potential impact of change, and provides implications for validation of KCO model.

1. Social Network Analysis
2. Performance Metrics
3. KM Concept/Strategy
4. Policy/Strategic Plan Development and Implementation
5. KM Cultural Transformation
6. Information Resource Management
7. Enterprise Resource Planning
8. Business Process Reengineering
9. Systems Thinking
10. Decision Science
11. Business Acumen

❖ **Knowledge Assurance Manager (KAM)**

Definition: ensures the assimilation of information and knowledge is protected from unauthorized access and/or disclosure.

1. Systems Integration
2. Network Security
3. Architecture
4. Web Development for KM
5. E-Business/Electronic Data Interchange
6. Knowledge Mapping
7. Social Network Analysis
8. Performance Metrics
9. KM Concept/Strategy
10. KM Cultural Transformation
11. KM Ethical and Legal Issues
12. Systems Thinking

❖ **Knowledge Assistant (KA)**

Definition: understands organizational information needs; assists in data gathering activities; uses expert multimedia skills and Web tools to prepare and distribute organizational products/communications; analyzes and improves organizational workflow and communications. This job role is not considered inherently governmental.

1. Content Integration
2. KM Concept/Strategy
3. Systems Thinking
4. Web Development for KM

Competencies by Job Role

The following table illustrates the breakout of competencies (along the left hand side) by job role (across the top) within this career area:

Competency:	Chief Knowledge Officer (CKO)	Intellectual Capital Manager (ICM)	Knowledge Assurance Manager (KAM)	Knowledge Community Leader (KCL)	Knowledge Life Cycle Engineer (KLE)	Knowledge Manager (KM)	Knowledge Process Manager (KPM)	Knowledge Research Engineer (KRE)	Knowledge Systems Engineer (KSE)	Knowledge Transfer Engineer (KTE)	Performance Measurement Engineer (PME)	Knowledge Assistant (KA)
Architecture	•		•			•			•			
Building Coalition/Communication	•			•		•			•			
Business Acumen	•	•				•					•	
Business Process Reengineering	•			•		•			•		•	
Cognitive and Decision Science						•			•		•	
Communities of Practice				•	•	•				•		
Content Integration				•	•	•	•	•	•	•		•
Electronic Commerce/Electronic Data Interchange	•		•			•			•			
Enterprise Resource Planning	•	•				•					•	
Facilitation and Arbitration	•			•		•						
Information Resource Management	•	•				•					•	
Information Systems/Network Security			•						•			
KM Concept/Strategy	•	•	•	•	•	•	•	•	•	•	•	•
KM Cultural Transformation	•		•		•	•	•	•		•	•	
KM Ethical and Legal Issues	•		•			•						
KM Program/Project Management	•					•	•					
Knowledge Base Development	•					•			•			
Knowledge Life Cycle Management	•			•	•	•	•	•				
Knowledge Mapping	•		•	•	•	•	•	•		•		
Knowledge Sharing/Reuse	•	•		•	•	•	•	•		•		
Knowledge Transfer	•			•		•	•			•		
Leading People	•	•		•		•						
Learning Environment Management	•	•		•		•	•		•			
Performance Metrics	•		•	•		•					•	
Policy/Strategic Plan Development and Implementation	•					•					•	
Social Network Analysis			•	•	•		•	•	•	•	•	

Competency:	Chief Knowledge Officer (CKO)	Intellectual Capital Manager (ICM)	Knowledge Assurance Manager (KAM)	Knowledge Community Leader (KCL)	Knowledge Life Cycle Engineer (KLE)	Knowledge Manager (KM)	Knowledge Process Manager (KPM)	Knowledge Research Engineer (KRE)	Knowledge Systems Engineer (KSE)	Knowledge Transfer Engineer (KTE)	Performance Measurement Engineer (PME)	Knowledge Assistant (KA)
Software Development									●			
Systems Integration			●						●			
Systems Thinking	●	●	●	●	●	●	●	●	●	●	●	●
Web Development for KM			●	●					●			●

Job Roles by Occupational Series

The following table presents a matrix of the occupational series (on the left side) by the job roles in this career area (across the top). It is offered as general guidance to help identify where the work performed in the various job roles may be found in the federal government workforce. As such, it does not depict every situation that could occur. More detailed information on the draft classification standard for the Information Technology Group (GS-2200) can be found in Appendix B of Volume I.

	Chief Knowledge Officer	Knowledge Manager	Knowledge Systems Engineer	Knowledge Process Manager	Knowledge Transfer Engineer	Knowledge Research Engineer	Knowledge Life Cycle Engineer	Knowledge Community Leader	Intellectual Capital Manager	Performance Measurement Engineer	Knowledge Assurance Manager	Knowledge Assistant
GS-301 Misc. Admin. and Program												
GS-303 Misc. Clerk and Assistant												•
GS-335 Computer Clerk & Assistant						•						•
GS-340 Program Management	•	•		•			•	•	•	•		
GS-343 Management & Program Analysis		•		•		•	•	•		•		•
GS-391 Telecommunications	•	•	•	•				•	•	•	•	
GS-392 General Telecommunications						•				•		
GS-854 Computer Engineer			•	•		•		•				
GS-855 Electronics Engineer								•				
GS-1410 Librarian	•	•		•			•	•	•		•	
GS-1411 Library Technician		•	•			•	•			•	•	•
GS-1412 Technical Information Services			•			•				•	•	•

	Chief Knowledge Officer	Knowledge Manager	Knowledge Systems Engineer	Knowledge Process Manager	Knowledge Transfer Engineer	Knowledge Research Engineer	Knowledge Life Cycle Engineer	Knowledge Community Leader	Intellectual Capital Manager	Performance Measurement Engineer	Knowledge Assurance Manager	Knowledge Assistant
GS-1550 Technical Information Services	●		●					●		●	●	
GS-2210¹ IT Management	●	●	●	●	●		●	●	●	●	●	

¹ Formerly GS-334 Computer Specialist.

Job Role Distribution within an Organization

To help in identifying opportunities for employees to advance within the KM career area, the following chart provides an overview of where KM job roles are found at various DON activities. It is intended to be a guide to show where these job roles are most typically encountered, although there may be significant differences at certain locations. Some job roles (for example, the Knowledge Research Engineer, Knowledge Life Cycle Engineer and Knowledge Transfer Engineer) may be combined in smaller organizations.

	Chief Knowledge Officer	Knowledge Manager	Knowledge Systems Engineer	Knowledge Process Manager	Knowledge Transfer Engineer	Knowledge Research Engineer	Knowledge Life Cycle Engineer	Knowledge Community Leader	Intellectual Capital Manager	Performance Measurement Engineer	Knowledge Assurance Manager	Knowledge Assistant
Service/Claimant Headquarters	●	●	●	●	●	●	●	●	●	●	●	●
Field Activity/Command Headquarters		●	●	●				●			●	●

Career Area: Knowledge Management**Job Role: Chief Knowledge Officer (CKO)**

1	Competency: Architecture		Proficiency:		Level:					Skill Topics:
			Current	Required	E	I	J	S	Ex	
Strategic Value: <i>To provide secure information systems that are efficient, effective, interoperable, scalable, reliable, integrated and affordable.</i>	Learning Objectives: Understanding the operational, systems and technical views of the architecture framework endorsed by DoD, and their application in computer and information systems components.	0 1 2 3 4	0 1 2 3 4					X	X	- OMB Memo M-97-16 - C4ISR architecture framework - Process modeling - Data interchange services - Computer systems architecture - System design, including hardware components and configuration - Database management - Distributed processing - Operating Systems - Networks - Systems software - Technical Standards--their role and specific standards in use and adopted by DoD and DON - Cryptographic equipment and systems - DoD Security Architecture (MSL)
	Developmental Opportunities: Learning: - Information Resources Management College, Managing Information Architectures and Infrastructures (all) - Certification in KM (government, DON, academic) (S, Ex) Work-based: - Attend KM conferences, such as IKM, Knowledge World, Enterprise Information Group (all)	Gap Assessment: _____ - _____ = _____ Required Proficiency - Current Proficiency = Gap Gap Mitigation Strategy:								

Career Area: Knowledge Management**Job Role: Chief Knowledge Officer (CKO)**

2	Competency: Knowledge Base Development		Proficiency:		Level:					Skill Topics:
	Current	Required	E	I	J	S	Ex			
<p><u>Strategic Value:</u></p> <p>To provide a critical knowledge base repository for decision makers.</p>	0 1 2 3 4	0 1 2 3 4					X	X	<ul style="list-style-type: none"> - Requirement Definition - Functional Specification - Cognitive Psychology - Interviewing - Database Design - Systems Engineering - Intelligent Agents - Decision Aids - Metadata - Object Oriented Programming 	
<p><u>Learning Objectives:</u></p> <p>Knowledge of and ability to collect critical knowledge from subject matter experts and incorporate it into a structured database application.</p>										
<p><u>Developmental Opportunities:</u></p> <p>Learning:</p> <ul style="list-style-type: none"> - Certification in KM (government, DON, academic) (S, Ex) <p>Work-based:</p> <ul style="list-style-type: none"> - Attend KM conferences, such as IKM, Knowledge World, Enterprise Information Group (all) 	<p><u>Gap Assessment:</u></p> <p>_____ - _____ = _____</p> <p>Required Proficiency - Current Proficiency = Gap</p> <p><u>Gap Mitigation Strategy:</u></p>									

Career Area: Knowledge Management**Job Role: Chief Knowledge Officer (CKO)**

3	Competency: Electronic Commerce/Electronic Data Interchange	Proficiency:	Level:	Skill Topics:						
		Current	Required	E I J S Ex						
Strategic Value: <i>To conduct business in an integrated and automated paperless information environment.</i>	Learning Objectives: Knowledge of and ability to develop and apply electronic commerce tools and electronic data interchange policy, practices, standards, and procedures.	0 1 2 3 4	0 1 2 3 4					X	X	- Electronic mail - Electronic bulletin board systems - Electronic funds transfer - Business Process Evaluation/Reengineering - Economic/Cost Benefit Analysis - Project Planning/Development - Enterprise Integration/Implementation - EC/EDI Standards Coordination/Development Support - Training and awareness
	Developmental Opportunities: Learning: - Certification in KM (government, DON, academic) (S, Ex) Work-based: - Attend KM conferences, such as IKM, Knowledge World, Enterprise Information Group (all)	Gap Assessment: _____ - _____ = _____ Required Proficiency - Current Proficiency = Gap Gap Mitigation Strategy:								

Career Area: Knowledge Management**Job Role: Chief Knowledge Officer (CKO)**

4	<u>Competency:</u> Learning Environment Management		<u>Proficiency:</u>		<u>Level:</u>					<u>Skill Topics:</u>												
			Current	Required	E	I	J	S	Ex													
<u>Strategic Value:</u> <i>To encourage innovation and creativity in the workplace.</i>			<u>Learning Objectives:</u> Knowledge of and ability to encourage innovations, build a work environment and design training methods conducive to continuous learning and sharing knowledge.		0	1	2	3	4	0	1	2	3	4								- Intellectual Capital - Individual Human Capital, Social Capital and Enterprise Capital - Knowledge Acquisition, Production, Transfer, Brokering - Information Management
<u>Developmental Opportunities:</u> Learning: - Certification in KM (government, DON, academic) (S, Ex) Work-based: - Attend KM conferences, such as IKM, Knowledge World, Enterprise Information Group (all)			<u>Gap Assessment:</u> _____ - _____ = _____ Required Proficiency - Current Proficiency = Gap <u>Gap Mitigation Strategy:</u>																			

Career Area: Knowledge Management**Job Role: Chief Knowledge Officer (CKO)**

5	Competency: Knowledge Sharing/Reuse		Proficiency:		Level:					Skill Topics:												
			Current	Required	E	I	J	S	Ex													
<u>Strategic Value:</u> <i>To encourage sharing and reuse of knowledge and best practices and preserve organizational knowledge beyond attrition.</i>			<u>Learning Objectives:</u> Knowledge of and ability to encourage and facilitate sharing knowledge, such as developing and implementing various approaches for providing incentives for sharing best practices and utilizing IT tools that facilitate sharing and preserving knowledge.		0	1	2	3	4	0	1	2	3	4								- Relationship building - Facilitation - Group Dynamics - Groupware and collaboration tools - Communication - Critical Thinking - Social networks
<u>Developmental Opportunities:</u> Learning: - Certification in KM (government, DON, academic) (S, Ex) Work-based: - Attend KM conferences, such as IKM, Knowledge World, Enterprise Information Group (all)			<u>Gap Assessment:</u> _____ - _____ = _____ Required Proficiency - Current Proficiency = Gap <u>Gap Mitigation Strategy:</u>																			

Career Area: Knowledge Management**Job Role: Chief Knowledge Officer (CKO)**

6	Competency: Performance Metrics		Proficiency:		Level:					Skill Topics:
	Current	Required	E	I	J	S	Ex			
<u>Strategic Value:</u> <i>To identify qualitative and quantitative measures of effectiveness in support of DON IM/IT programs.</i>	0 1 2 3 4	0 1 2 3 4					X	X	- Activity-based costing - Earned value management - Outcomes-based performance management/benefits realization - Balanced Scorecard concept - Malcomb Baldrige Performance Excellence Criteria - Productivity enhancement	
	<u>Learning Objectives:</u> Knowledge of and ability to apply the tools, methodologies, and procedures to measure or evaluate enterprise IM/IT performance.		<u>Gap Assessment:</u> _____ - _____ = _____ Required Proficiency - Current Proficiency = Gap							
	<u>Developmental Opportunities:</u> Learning: - Certification in KM (government, DON, academic) (S, Ex) Work-based: - Attend KM conferences, such as IKM, Knowledge World, Enterprise Information Group (all)		<u>Gap Mitigation Strategy:</u>							

Career Area: Knowledge Management**Job Role: Chief Knowledge Officer (CKO)**

7	Competency: KM Concept/Strategy		Proficiency:		Level:					Skill Topics:
	Current	Required	E	I	J	S	Ex			
<p><u>Strategic Value:</u></p> <p>To use Knowledge Management as strategy to improve productivity as a learning organization.</p>	<p><u>Learning Objectives:</u></p> <p>Knowledge of and ability to understand the KM concept and how to insert it into the business strategy development in order to realize the benefits of KM.</p>	0 1 2 3 4	0 1 2 3 4				X	X	<ul style="list-style-type: none"> - Intellectual Capital - Individual Human Capital, Social Capital and Enterprise Capital - Knowledge acquisition, production, transfer, brokering - Knowledge supply chain - KM process - KM tools - Impacts of KM on business 	
	<p><u>Developmental Opportunities:</u></p> <p>Learning:</p> <ul style="list-style-type: none"> - Certification in KM (government, DON, academic) (S, Ex) <p>Work-based:</p> <ul style="list-style-type: none"> - Attend KM conferences, such as IKM, Knowledge World, Enterprise Information Group (all) 	<p><u>Gap Assessment:</u></p> <p>_____ - _____ = _____</p> <p>Required Proficiency - Current Proficiency = Gap</p> <p><u>Gap Mitigation Strategy:</u></p>								

Career Area: Knowledge Management**Job Role: Chief Knowledge Officer (CKO)**

8	Competency: Policy/Strategic Plan Development and Implementation	Proficiency:		Level:					Skill Topics:
		Current	Required	E	I	J	S	Ex	
Strategic Value: <i>To develop and assist in the implementation of departmental policy and strategic plans regarding DON, DoD and Federal Government legislative mandates (i.e., Congressional Directives, Executive Orders, and policies relating to information systems communications).</i>	Learning Objectives: Knowledge of and ability to apply information technology concepts, principles, practices, procedures, policies, standards and operational requirements both internal and external to the DON (e.g., at the Joint Staff level) necessary to develop or modify IT strategic plans and/or policy.	0 1 2 3 4	0 1 2 3 4					X	X
	Developmental Opportunities: Learning: - Certification in KM (government, DON, academic) (S, Ex) Work-based: - Attend KM conferences, such as IKM, Knowledge World, Enterprise Information Group (all)	Gap Assessment: _____ - _____ = _____ Required Proficiency - Current Proficiency = Gap Gap Mitigation Strategy:					- Commercial, Federal and Military standards - Operational procedures - Operational doctrine - C4I issues - Policy directives - Policy development - Interoperability deficiencies - Migration/integration initiatives - DoD security - Strategic Planning		

Career Area: Knowledge Management**Job Role: Chief Knowledge Officer (CKO)**

9	Competency: KM Cultural Transformation		Proficiency:		Level:					Skill Topics:
			Current	Required	E	I	J	S	Ex	
Strategic Value: <i>To promote cultural transformation to accept knowledge sharing as power.</i>	Learning Objectives: Knowledge of and ability to facilitate cultural changes from "knowledge is power" to "knowledge sharing is power" using various tools and techniques.	0 1 2 3 4	0 1 2 3 4					X	X	- Facilitation - Team building - Sociology of knowledge - Collaboration tools - Group dynamics - Incentives and rewards - Concept of organizational learning - Training and awareness
	Developmental Opportunities: Learning: - Certification in KM (government, DON, academic) (S, Ex) Work-based: - Attend KM conferences, such as IKM, Knowledge World, Enterprise Information Group (all)	Gap Assessment: _____ - _____ = _____ Required Proficiency - Current Proficiency = Gap Gap Mitigation Strategy:								

Career Area: Knowledge Management**Job Role: Chief Knowledge Officer (CKO)**

10	Competency: Information Resource Management	Proficiency:		Level:					Skill Topics:
		Current	Required	E	I	J	S	Ex	
<u>Strategic Value:</u> <i>To ensure organization information resources are a strategic asset that will provide the backbone of DON information needs by utilizing information resource assets in the most advantageous manner.</i>	<u>Learning Objectives:</u> Knowledge of and ability to manage information, information systems and related resources according to Federal laws and DoD, DON regulations.	0 1 2 3 4	0 1 2 3 4					X	X
	<u>Developmental Opportunities:</u> Learning: - Certification in KM (government, DON, academic) (S, Ex) Work-based: - Attend KM conferences, such as IKM, Knowledge World, Enterprise Information Group (all)	<u>Gap Assessment:</u> _____ - _____ = _____ Required Proficiency - Current Proficiency = Gap <u>Gap Mitigation Strategy:</u>					- Information management - Information systems management - Resource management - Project, program, contract and life-cycle management - Information resource management regulations, policies and procedures - Computer products and services analysis - Cost-benefit/economic analysis - Life-cycle cost analysis		

Career Area: Knowledge Management**Job Role: Chief Knowledge Officer (CKO)**

11	Competency: Enterprise Resource Planning		Proficiency:		Level:					Skill Topics:											
			Current	Required	E	I	J	S	Ex												
<u>Strategic Value:</u> <i>To enable organizations to unify disparate enterprise information systems (e.g., financial, human resources, supply chain management) into one comprehensive application.</i>			<u>Learning Objectives:</u> Knowledge of and ability to enable communication between multiple enterprise applications and platforms.		0	1	2	3	4	0	1	2	3	4							- Visioning - Requirements analysis - Feasibility studies - Life-cycle cost estimates - Commercial vendor assessments - Finance strategies - ERP software evaluation and procurement - Plan and implementation of ERP software usage - IV&V - Outcome-based performance measurement
<u>Developmental Opportunities:</u> Learning: - Certification in KM (government, DON, academic) (S, Ex) Work-based: - Attend KM conferences, such as IKM, Knowledge World, Enterprise Information Group (all)			<u>Gap Assessment:</u> _____ - _____ = _____ Required Proficiency - Current Proficiency = Gap <u>Gap Mitigation Strategy:</u>																		

Career Area: Knowledge Management**Job Role: Chief Knowledge Officer (CKO)**

12	Competency: KM Ethical and Legal Issues		Proficiency:		Level:					Skill Topics:											
			Current	Required	E	I	J	S	Ex												
<u>Strategic Value:</u> To conduct business in compliance with law and DON ethics.			<u>Learning Objectives:</u> Knowledge of and ability to take actions in compliance with laws and regulations that are relevant to KM efforts and to consider ethical issues whenever appropriate.		0	1	2	3	4	0	1	2	3	4					X	X	- Relevant laws and regulations - Privacy Issues - Security Issues - Ethics in teamwork
<u>Developmental Opportunities:</u> Learning: - Certification in KM (government, DON, academic) (S, Ex) Work-based: - Attend KM conferences, such as IKM, Knowledge World, Enterprise Information Group (all)			<u>Gap Assessment:</u> _____ - _____ = _____ Required Proficiency - Current Proficiency = Gap <u>Gap Mitigation Strategy:</u>																		

Career Area: Knowledge Management**Job Role: Chief Knowledge Officer (CKO)**

13	Competency: Business Process Reengineering		Proficiency:		Level:					Skill Topics:											
			Current	Required	E	I	J	S	Ex												
<u>Strategic Value:</u> <i>To ensure the organization's methods and processes support enterprise IM/IT requirements, both cost and technical.</i>			<u>Learning Objectives:</u> Knowledge of and ability to apply analytical methods and procedures to review and assess IM/IT processes and procedures to support the development and enhancement of administrative processes, procedures and organizations.		0	1	2	3	4	0	1	2	3	4							- Economic analysis principles - Activity-based costing - DoD and DON budget and procurement processes - BPR methodologies, metrics, tools and techniques - Automated information systems for specific computer projects - Plan and budgetary document development to support requirements
<u>Developmental Opportunities:</u> Learning: - Certification in KM (government, DON, academic) (S, Ex) - DoD BPR Certificate Program (all) - Information Resources Management College, Reengineering Organizational Processes (all) Work-based: - Attend KM conferences, such as IKM, Knowledge World, Enterprise Information Group (all)			<u>Gap Assessment:</u> _____ - _____ = _____ Required Proficiency - Current Proficiency = Gap <u>Gap Mitigation Strategy:</u>																		

Career Area: Knowledge Management**Job Role: Chief Knowledge Officer (CKO)**

14	<u>Competency:</u> Facilitation and Arbitration		<u>Proficiency:</u>		<u>Level:</u>					<u>Skill Topics:</u>											
			Current	Required	E	I	J	S	Ex												
<u>Strategic Value:</u> <i>To build effective communities of practice to share knowledge and encourage innovation.</i>			<u>Learning Objectives:</u> Knowledge of and ability to work with disparate groups of people and build a single team vision, goals and objectives and to build strong communities of practice.		0	1	2	3	4	0	1	2	3	4					X	X	- Negotiating - Counseling - Group dynamics - Situational leadership - Organizational behavior
<u>Developmental Opportunities:</u> Learning: - Certification in KM (government, DON, academic) (S, Ex) Work-based: - Attend KM conferences, such as IKM, Knowledge World, Enterprise Information Group (all)			<u>Gap Assessment:</u> _____ - _____ = _____ Required Proficiency - Current Proficiency = Gap <u>Gap Mitigation Strategy:</u>																		

Career Area: Knowledge Management**Job Role: Chief Knowledge Officer (CKO)**

15	Competency: Systems Thinking		Proficiency:		Level:					Skill Topics:
			Current	Required	E	I	J	S	Ex	
Strategic Value: <i>To build a learning organization by developing the capacity for putting pieces together and seeing the whole.</i>	Learning Objectives: Knowledge of and ability to create structural explanations for why things happen, to apply system archetypes to business situations, and to plan and evaluate actions to improve performance.	0 1 2 3 4 0 1 2 3 4						X	X	- Scoping - Setting expectations - Data collection and generation - Making systemic sense of data - Building shared understanding & commitment - Identifying intervention - Follow through
	Developmental Opportunities: Learning: - Certification in KM (government, DON, academic) (S, Ex) Work-based: - Attend KM conferences, such as IKM, Knowledge World, Enterprise Information Group (all)	Gap Assessment: _____ - _____ = _____ Required Proficiency - Current Proficiency = Gap Gap Mitigation Strategy:								

Career Area: Knowledge Management**Job Role: Chief Knowledge Officer (CKO)**

16	Competency: Leading People		Proficiency:		Level:					Skill Topics:											
			Current	Required	E	I	J	S	Ex												
<u>Strategic Value:</u> <i>To design and implement strategies that maximize employee potential and foster high ethical standards in meeting the organization's vision and goals.</i>			<u>Learning Objectives:</u> Knowledge of and ability to inspire and motivate others toward goal accomplishment; to empower people, promote quality through effective use of performance management systems, foster team spirit, trust and pride.		0	1	2	3	4	0	1	2	3	4							- Policy directives - Policy development - Strategic planning - Performance management - Quality management - Team building - Understanding of cultural diversity - Coaching/mentoring - Conflict resolution - Negotiation/labor union relationship
<u>Developmental Opportunities:</u> Learning: - Certification in KM (government, DON, academic) (S, Ex) Work-based: - Attend KM conferences, such as IKM, Knowledge World, Enterprise Information Group (all)			<u>Gap Assessment:</u> _____ - _____ = _____ Required Proficiency - Current Proficiency = Gap <u>Gap Mitigation Strategy:</u>																		

Career Area: Knowledge Management**Job Role: Chief Knowledge Officer (CKO)**

17	Competency: Business Acumen		Proficiency:		Level:					Skill Topics:											
			Current	Required	E	I	J	S	Ex												
<u>Strategic Value:</u> <i>To aid the organization with maximizing its human, financial, material and information resources in a manner that instills public trust and accomplishes the organization's mission.</i>			<u>Learning Objectives:</u> Knowledge of and ability to manage and plan the organization's resource needs and execute strategies to maximize these resources.		0	1	2	3	4	0	1	2	3	4					X	X	- Understanding organizational operations - Business processes - Financial management
<u>Developmental Opportunities:</u> Learning: - Certification in KM (government, DON, academic) (S, Ex) Work-based: - Attend KM conferences, such as IKM, Knowledge World, Enterprise Information Group (all)			<u>Gap Assessment:</u> _____ - _____ = _____ Required Proficiency - Current Proficiency = Gap <u>Gap Mitigation Strategy:</u>																		

Career Area: Knowledge Management**Job Role: Chief Knowledge Officer (CKO)**

18	Competency: Building Coalition/Communication	Proficiency:	Level:	Skill Topics:						
		Current	Required	E I J S Ex						
<u>Strategic Value:</u> <i>To explain, advocate, and express facts and ideas in a convincing manner and to negotiate with individuals and groups internally and externally. To be able to develop an expansive professional network with other organizations and to identify the internal and external politics that impact the work of the organization.</i>	<u>Learning Objectives:</u> Knowledge of and ability to engage the organization's operating units, represent the organization to external constituents, and build coalitions with external constituents.	0 1 2 3 4	0 1 2 3 4					X	X	- Organizational dynamics - Communication - Team building
	<u>Developmental Opportunities:</u> Learning: - Certification in KM (government, DON, academic) (S, Ex) Work-based: - Attend KM conferences, such as IKM, Knowledge World, Enterprise Information Group (all)	<u>Gap Assessment:</u> _____ - _____ = _____ Required Proficiency - Current Proficiency = Gap <u>Gap Mitigation Strategy:</u>								

Career Area: Knowledge Management**Job Role: Chief Knowledge Officer (CKO)**

19	Competency: KM Program/Project Management		Proficiency:		Level:					Skill Topics:											
			Current	Required	E	I	J	S	Ex												
<u>Strategic Value:</u> To provide program/project planning and budgeting, fiscal management, financial analysis and reporting, and schedule/conflict management of DON KM program.			<u>Learning Objectives:</u> Knowledge of and ability to manage KM programs/projects in various sizes, implement goals and realize benefits.		0	1	2	3	4	0	1	2	3	4				X	X	X	- Human factors - Group psychology/group dynamics - Organizational dynamics - Conflict management/team building - Web based systems - Cognitive science - Distributed computing - Network security
<u>Developmental Opportunities:</u> Learning: - Certification in KM (government, DON, academic) (S, Ex) Work-based: - Attend KM conferences, such as IKM, Knowledge World, Enterprise Information Group (all)			<u>Gap Assessment:</u> _____ - _____ = _____ Required Proficiency - Current Proficiency = Gap <u>Gap Mitigation Strategy:</u>																		

Career Area: Knowledge Management**Job Role: Chief Knowledge Officer (CKO)**

20	<u>Competency:</u> Knowledge Life Cycle Management		<u>Proficiency:</u>		<u>Level:</u>					<u>Skill Topics:</u>
			Current	Required	E	I	J	S	Ex	
<u>Strategic Value:</u> <i>To ensure that an organization's knowledge is appropriate and sufficient.</i>	<u>Learning Objectives:</u> Knowledge of and ability to analyze knowledge to determine when knowledge should be refreshed, archived, or destroyed.		0 1 2 3 4	0 1 2 3 4			X	X		- Information management - Content management - Computer products and services analysis
	<u>Developmental Opportunities:</u> Learning: - Certification in KM (government, DON, academic) (S, Ex) Work-based: - Attend KM conferences, such as IKM, Knowledge World, Enterprise Information Group (all)	<u>Gap Assessment:</u> _____ - _____ = _____ Required Proficiency - Current Proficiency = Gap <u>Gap Mitigation Strategy:</u>								

Career Area: Knowledge Management**Job Role: Chief Knowledge Officer (CKO)**

21	Competency: Knowledge Mapping	Proficiency:		Level:					Skill Topics:
		Current	Required	E	I	J	S	Ex	
Strategic Value: <i>To structure and manage an organization's knowledge directly and serve as visual directories to other more detailed sources of client knowledge.</i>	Learning Objectives: Knowledge of and ability to provide the organization with a picture of the specific knowledge it requires in order to support its business processes.	0 1 2 3 4	0 1 2 3 4		X	X	X		- Intellectual Capital - Individual Human Capital, Social Capital and Enterprise Capital - Knowledge acquisition, production, transfer, brokering - Information Management
	Developmental Opportunities: Learning: - Certification in KM (government, DON, academic) (S, Ex) Work-based: - Attend KM conferences, such as IKM, Knowledge World, Enterprise Information Group (all)	Gap Assessment: _____ - _____ = _____ Required Proficiency - Current Proficiency = Gap Gap Mitigation Strategy:							

Career Area: Knowledge Management**Job Role: Chief Knowledge Officer (CKO)**

22	Competency: Knowledge Transfer		Proficiency:		Level:					Skill Topics:
			Current	Required	E	I	J	S	Ex	
Strategic Value: <i>To ensure critical organizational knowledge is identified and made explicit.</i>	Learning Objectives: Knowledge of and ability to work with individuals and organizational leadership to identify organizational knowledge and their repositories, and to synthesize knowledge.	0 1 2 3 4	0 1 2 3 4	X	X	X	X			- Intellectual Capital - Individual Human Capital, Social Capital and Enterprise Capital - Knowledge acquisition, production, transfer, brokering
	Developmental Opportunities: Learning: - Certification in KM (government, DON, academic) (S, Ex) Work-based: - Attend KM conferences, such as IKM, Knowledge World, Enterprise Information Group (all)	Gap Assessment: _____ - _____ = _____ Required Proficiency - Current Proficiency = Gap Gap Mitigation Strategy:								

Career Area: Knowledge Management**Job Role: Knowledge Manager (KM)**

1	Competency: Architecture		Proficiency:		Level:					Skill Topics:
			Current	Required	E	I	J	S	Ex	
Strategic Value: <i>To provide secure information systems that are efficient, effective, interoperable, scalable, reliable, integrated and affordable.</i>	Learning Objectives: Understanding the operational, systems and technical views of the architecture framework endorsed by DoD, and their application in computer and information systems components.	0 1 2 3 4	0 1 2 3 4		X	X	X	X		- OMB Memo M-97-16 - C4ISR architecture framework - Process modeling - Data interchange services - Computer systems architecture - System design, including hardware components and configuration - Database management - Distributed processing - Operating Systems - Networks - Systems software - Technical Standards--their role and specific standards in use and adopted by DoD and DON - Cryptographic equipment and systems - DoD Security Architecture (MSL)
	Developmental Opportunities: Learning: - Information Resources Management College, Managing Information Architectures and Infrastructures (all) - Certification in KM (government, DON, academic) (S, Ex) Work-based: - Attend KM conferences, such as IKM, Knowledge World, Enterprise Information Group (all)	Gap Assessment: _____ - _____ = _____ Required Proficiency - Current Proficiency = Gap Gap Mitigation Strategy:								

Career Area: Knowledge Management**Job Role: Knowledge Manager (KM)**

2	Competency: Knowledge Base Development	Proficiency:		Level:					Skill Topics:
		Current	Required	E	I	J	S	Ex	
Strategic Value: <i>To provide a critical knowledge base repository for decision makers.</i>	Learning Objectives: Knowledge of and ability to collect critical knowledge from subject matter experts and incorporate it into a structured database application.	0 1 2 3 4	0 1 2 3 4		X	X	X		- Requirements definition - Functional specification - Cognitive psychology - Interviewing - Database design - Systems engineering - Intelligent agents - Decision aids - Metadata - Object Oriented Programming
	Developmental Opportunities: Learning: - Certification in KM (government, DON, academic) (S, Ex) Work-based: - Attend KM conferences, such as IKM, Knowledge World, Enterprise Information Group (all)	Gap Assessment: _____ - _____ = _____ Required Proficiency - Current Proficiency = Gap Gap Mitigation Strategy:							

Career Area: Knowledge Management**Job Role: Knowledge Manager (KM)**

3	Competency: Electronic Commerce/Electronic Data Interchange	Proficiency:		Level:					Skill Topics:
		Current	Required	E	I	J	S	Ex	
Strategic Value: <i>To conduct business in an integrated and automated paperless information environment.</i>	Learning Objectives: Knowledge of and ability to develop and apply electronic commerce tools and electronic data interchange policy, practices, standards, and procedures.	0 1 2 3 4	0 1 2 3 4			X	X		- Electronic mail - Electronic bulletin board systems - Electronic funds transfer - Business Process Evaluation/Reengineering - Economic/Cost benefit analysis - Project planning/development - Enterprise integration/implementation - EC/EDI Standards coordination/development support - Training and awareness
	Developmental Opportunities: Learning: - Certification in KM (government, DON, academic) (S, Ex) Work-based: - Attend KM conferences, such as IKM, Knowledge World, Enterprise Information Group (all)	Gap Assessment: _____ - _____ = _____ Required Proficiency - Current Proficiency = Gap Gap Mitigation Strategy:							

Career Area: Knowledge Management**Job Role: Knowledge Manager (KM)**

4	<u>Competency:</u> Content Integration		<u>Proficiency:</u>		<u>Level:</u>					<u>Skill Topics:</u>
			Current	Required	E	I	J	S	Ex	
<u>Strategic Value:</u> <i>To provide the organization a consolidated library of knowledge available to transport across different media.</i>	<u>Learning Objectives:</u> Knowledge of and ability to synthesize organizational knowledge in a manner that allows for organization-wide access.		0 1 2 3 4	0 1 2 3 4		X	X	X		- Information management - Resource management - Computer products and services analysis
	<u>Developmental Opportunities:</u> Learning: - Certification in KM (government, DON, academic) (S, Ex) Work-based: - Attend KM conferences, such as IKM, Knowledge World, Enterprise Information Group (all)	<u>Gap Assessment:</u> <div style="display: flex; justify-content: space-between; width: 100%;"> _____ - _____ = _____ </div> <div style="display: flex; justify-content: space-between; width: 100%;"> Required Proficiency - Current Proficiency = Gap </div> <u>Gap Mitigation Strategy:</u>								

Career Area: Knowledge Management**Job Role: Knowledge Manager (KM)**

5	Competency: Learning Environment Management		Proficiency:		Level:					Skill Topics:												
			Current	Required	E	I	J	S	Ex													
<u>Strategic Value:</u> <i>To encourage innovation and creativity in the workplace.</i>			<u>Learning Objectives:</u> Knowledge of and ability to encourage innovations, build a work environment and design training methods conducive to continuous learning and sharing knowledge.		0	1	2	3	4	0	1	2	3	4								- Intellectual Capital - Individual Human Capital, Social Capital and Enterprise Capital - Knowledge acquisition, production, transfer, brokering - Information management
<u>Developmental Opportunities:</u> Learning: - Certification in KM (government, DON, academic) (S, Ex) Work-based: - Attend KM conferences, such as IKM, Knowledge World, Enterprise Information Group (all)			<u>Gap Assessment:</u> _____ - _____ = _____ Required Proficiency - Current Proficiency = Gap <u>Gap Mitigation Strategy:</u>																			

Career Area: Knowledge Management**Job Role: Knowledge Manager (KM)**

6	Competency: Knowledge Sharing/Reuse		Proficiency:		Level:					Skill Topics:
			Current	Required	E	I	J	S	Ex	
Strategic Value: <i>To encourage sharing and reuse of knowledge and best practices and preserve organizational knowledge beyond attrition.</i>	Learning Objectives: Knowledge of and ability to encourage and facilitate sharing knowledge, such as developing and implementing various approaches for providing incentives for sharing best practices and utilizing IT tools that facilitate sharing and preserving knowledge.	0 1 2 3 4 0 1 2 3 4		X	X	X				- Relationship building - Facilitation - Group dynamics - Groupware and collaboration tools - Communication - Critical thinking - Social networks
	Developmental Opportunities: Learning: - Certification in KM (government, DON, academic) (S, Ex) Work-based: - Attend KM conferences, such as IKM, Knowledge World, Enterprise Information Group (all)	Gap Assessment: <div style="display: flex; justify-content: space-between; width: 100%;"> _____ - _____ = _____ </div> <div style="display: flex; justify-content: space-between; width: 100%;"> Required Proficiency - Current Proficiency = Gap </div> Gap Mitigation Strategy:								

Career Area: Knowledge Management**Job Role: Knowledge Manager (KM)**

7	Competency: Performance Metrics		Proficiency:		Level:					Skill Topics:								
	Current	Required	E	I	J	S	Ex											
<u>Strategic Value:</u> To identify qualitative and quantitative measures of effectiveness in support of DON IM/IT programs.	<u>Learning Objectives:</u> Knowledge of and ability to apply the tools, methodologies, and procedures to measure or evaluate enterprise IM/IT performance.		0	1	2	3	4	0	1	2	3	4		X	X	X		- Activity-based costing - Earned value management - Outcomes-based performance management/Benefits realization - Balanced Scorecard concept - Malcomb Baldrige Performance Excellence Criteria - Productivity enhancement
	<u>Developmental Opportunities:</u> Learning: - Certification in KM (government, DON, academic) (S, Ex) Work-based: - Attend KM conferences, such as IKM, Knowledge World, Enterprise Information Group (all)		<u>Gap Assessment:</u> _____ - _____ = _____ Required Proficiency - Current Proficiency = Gap <u>Gap Mitigation Strategy:</u>															

Career Area: Knowledge Management**Job Role: Knowledge Manager (KM)**

8	Competency: KM Concept/Strategy		Proficiency:		Level:					Skill Topics:											
			Current	Required	E	I	J	S	Ex												
<u>Strategic Value:</u> <i>To use Knowledge Management as strategy to improve productivity as a learning organization.</i>			<u>Learning Objectives:</u> Knowledge of and ability to understand the KM concept and how to insert it into the business strategy development in order to realize the benefits of KM.		0	1	2	3	4	0	1	2	3	4							- Intellectual Capital - Individual Human Capital, Social Capital and Enterprise Capital - Knowledge acquisition, production, transfer, brokering - Knowledge supply chain - KM process - KM tools - Impacts of KM on business
<u>Developmental Opportunities:</u> Learning: - Certification in KM (government, DON, academic) (S, Ex) Work-based: - Attend KM conferences, such as IKM, Knowledge World, Enterprise Information Group (all)			<u>Gap Assessment:</u> _____ - _____ = _____ Required Proficiency - Current Proficiency = Gap <u>Gap Mitigation Strategy:</u>																		

Career Area: Knowledge Management**Job Role: Knowledge Manager (KM)**

9	Competency: Policy/Strategic Plan Development and Implementation	Proficiency:		Level:					Skill Topics:
		Current	Required	E	I	J	S	Ex	
Strategic Value: <i>To develop and assist in the implementation of departmental policy and strategic plans regarding DON, DoD and Federal Government legislative mandates (i.e., Congressional Directives, Executive Orders, and policies relating to information systems communications).</i>	Learning Objectives: Knowledge of and ability to apply information technology concepts, principles, practices, procedures, policies, standards and operational requirements both internal and external to the DON (e.g., at the Joint Staff level) necessary to	0 1 2 3 4	0 1 2 3 4			X	X		- Commercial, Federal and Military standards - Operational procedures - Operational doctrine - C4I issues - Policy directives - Policy development - Interoperability deficiencies - Migration/integration initiatives - DoD security - Strategic Planning
	Developmental Opportunities: Learning: - Certification in KM (government, DON, academic) (S, Ex) Work-based: - Attend KM conferences, such as IKM, Knowledge World, Enterprise Information Group (all)	Gap Assessment: _____ - _____ = _____ Required Proficiency - Current Proficiency = Gap Gap Mitigation Strategy:							

Career Area: Knowledge Management**Job Role: Knowledge Manager (KM)**

10	Competency: KM Cultural Transformation		Proficiency:		Level:					Skill Topics:		
			Current	Required	E	I	J	S	Ex			
<u>Strategic Value:</u> To promote cultural transformation to accept knowledge sharing as power.			<u>Learning Objectives:</u> Knowledge of and ability to facilitate cultural changes from "knowledge is power" to "knowledge sharing is power" using various tools and techniques.		0 1 2 3 4	0 1 2 3 4			X	X	X	- Facilitation - Team building - Sociology of knowledge - Collaboration tools - Group dynamics - Incentives and rewards - Concept of organizational learning - Training and awareness
<u>Developmental Opportunities:</u> Learning: - Certification in KM (government, DON, academic) (S, Ex) Work-based: - Attend KM conferences, such as IKM, Knowledge World, Enterprise Information Group (all)			<u>Gap Assessment:</u> _____ - _____ = _____ Required Proficiency - Current Proficiency = Gap <u>Gap Mitigation Strategy:</u>									

Career Area: Knowledge Management**Job Role: Knowledge Manager (KM)**

11	Competency: Information Resource Management	Proficiency:		Level:					Skill Topics:
<u>Strategic Value:</u> To ensure organization information resources are a strategic asset that will provide the backbone of DON information needs by utilizing information resource assets in the most advantageous manner.	<u>Learning Objectives:</u> Knowledge of and ability to manage information, information systems and related resources according to Federal laws and DoD, DON regulations.	Current	Required	E	I	J	S	Ex	<ul style="list-style-type: none">- Information management- Information systems management- Resource management- Project, program, contract and life-cycle management- Information resource management regulations, policies and procedures- Computer products and services analysis- Cost-benefit/economic analysis- Life-cycle cost analysis
		0 1 2 3 4	0 1 2 3 4				X	X	
	<u>Developmental Opportunities:</u> Learning: - Certification in KM (government, DON, academic) (S, Ex) Work-based: - Attend KM conferences, such as IKM, Knowledge World, Enterprise Information Group (all)	<u>Gap Assessment:</u> _____ - _____ = _____ Required Proficiency - Current Proficiency = Gap <u>Gap Mitigation Strategy:</u>							

Career Area: Knowledge Management**Job Role: Knowledge Manager (KM)**

12	Competency: Enterprise Resource Planning		Proficiency:		Level:					Skill Topics:
	Current	Required	E	I	J	S	Ex			
<p><u>Strategic Value:</u></p> <p>To enable organizations to unify disparate enterprise information systems (e.g., financial, human resources, supply chain management) into one comprehensive application.</p>	0 1 2 3 4	0 1 2 3 4			X	X	X	<p><u>Learning Objectives:</u></p> <p>Knowledge of and ability to enable communication between multiple enterprise applications and platforms.</p>		
<p><u>Developmental Opportunities:</u></p> <p>Learning:</p> <ul style="list-style-type: none"> - Certification in KM (government, DON, academic) (S, Ex) <p>Work-based:</p> <ul style="list-style-type: none"> - Attend KM conferences, such as IKM, Knowledge World, Enterprise Information Group (all) 	<p><u>Gap Assessment:</u></p> <p>_____ - _____ = _____</p> <p>Required Proficiency - Current Proficiency = Gap</p> <p><u>Gap Mitigation Strategy:</u></p>							<ul style="list-style-type: none"> - Visioning - Requirements analysis - Feasibility studies - Life-cycle cost estimates - Commercial vendor assessments - Finance strategies - ERP software evaluation and procurement - Plan and implementation of ERP software usage - IV&V - Outcome-based performance measurement 		

Career Area: Knowledge Management**Job Role: Knowledge Manager (KM)**

13	Competency: KM Ethical and Legal Issues		Proficiency:		Level:					Skill Topics:											
			Current	Required	E	I	J	S	Ex												
<u>Strategic Value:</u> <i>To conduct business in compliance with law and DON ethics.</i>			<u>Learning Objectives:</u> Knowledge of and ability to take actions in compliance with laws and regulations that are relevant to KM efforts and to consider ethical issues whenever appropriate.		0	1	2	3	4	0	1	2	3	4							- Relevant laws and regulations - Privacy Issues - Security Issues - Ethics in teamwork
<u>Developmental Opportunities:</u> Learning: - Certification in KM (government, DON, academic) (S, Ex) Work-based: - Attend KM conferences, such as IKM, Knowledge World, Enterprise Information Group (all)			<u>Gap Assessment:</u> _____ - _____ = _____ Required Proficiency - Current Proficiency = Gap <u>Gap Mitigation Strategy:</u>																		

Career Area: Knowledge Management**Job Role: Knowledge Manager (KM)**

14	Competency: Business Process Reengineering	Proficiency:		Level:					Skill Topics:
<u>Strategic Value:</u> To ensure the organization's methods and processes support enterprise IM/IT requirements, both cost and technical.	<u>Learning Objectives:</u> Knowledge of and ability to apply analytical methods and procedures to review and assess IM/IT processes and procedures to support the development and enhancement of administrative processes, procedures and organizations.	Current	Required	E	I	J	S	Ex	- Economic analysis principles - Activity-based costing - DoD and DON budget and procurement processes - BPR methodologies, metrics, tools and techniques - Automated information systems for specific computer projects - Plan and budgetary document development to support requirements
		0 1 2 3 4	0 1 2 3 4			X	X	X	
	<u>Developmental Opportunities:</u> Learning: - Certification in KM (government, DON, academic) (S, Ex) - DoD BPR Certificate Program (all) - Information Resources Management College, Reengineering Organizational Processes (all) Work-based: - Attend KM conferences, such as IKM, Knowledge World, Enterprise Information Group (all)	<u>Gap Assessment:</u> _____ - _____ = _____ Required Proficiency - Current Proficiency = Gap <u>Gap Mitigation Strategy:</u>							

Career Area: Knowledge Management**Job Role: Knowledge Manager (KM)**

15	<u>Competency:</u> Facilitation and Arbitration		<u>Proficiency:</u>		<u>Level:</u>					<u>Skill Topics:</u>		
			Current	Required	E	I	J	S	Ex			
<u>Strategic Value:</u> <i>To build effective communities of practice to share knowledge and encourage innovation.</i>			<u>Learning Objectives:</u> Knowledge of and ability to work with disparate groups of people and build a single team vision, goals and objectives and to build strong communities of practice.		0 1 2 3 4	0 1 2 3 4			X	X	X	- Negotiating - Counseling - Group dynamics - Situational leadership - Organizational behavior
<u>Developmental Opportunities:</u> Learning: - Certification in KM (government, DON, academic) (S, Ex) Work-based: - Attend KM conferences, such as IKM, Knowledge World, Enterprise Information Group (all)			<u>Gap Assessment:</u> _____ - _____ = _____ Required Proficiency - Current Proficiency = Gap <u>Gap Mitigation Strategy:</u>									

Career Area: Knowledge Management**Job Role: Knowledge Manager (KM)**

16	Competency: Systems Thinking		Proficiency:		Level:					Skill Topics:											
			Current	Required	E	I	J	S	Ex												
<u>Strategic Value:</u> <i>To build a learning organization by developing the capacity for putting pieces together and seeing the whole.</i>			<u>Learning Objectives:</u> Knowledge of and ability to create structural explanations for why things happen, to apply system archetypes to business situations, and to plan and evaluate actions to improve performance.		0	1	2	3	4	0	1	2	3	4		X	X	X	X		- Scoping - Setting expectations - Data collection and generation - Making systemic sense of data - Building shared understanding & commitment - Identifying intervention - Follow through
<u>Developmental Opportunities:</u> Learning: - Certification in KM (government, DON, academic) (S, Ex) - DON Systems Thinking Computer-based Training (all) Work-based: - Attend KM conferences, such as IKM, Knowledge World, Enterprise Information Group (all)			<u>Gap Assessment:</u> _____ - _____ = _____ Required Proficiency - Current Proficiency = Gap <u>Gap Mitigation Strategy:</u>																		

Career Area: Knowledge Management**Job Role: Knowledge Manager (KM)**

17	<u>Competency:</u> Communities of Practice		<u>Proficiency:</u>		<u>Level:</u>					<u>Skill Topics:</u>											
			Current	Required	E	I	J	S	Ex												
<u>Strategic Value:</u> To facilitate communication among members of a community and share knowledge.			<u>Learning Objectives:</u> Knowledge of and ability to facilitate interaction among team members and develop processes to foster real-time collaboration across distributed organizations.		0	1	2	3	4	0	1	2	3	4							- Human factors- Group psychology/group dynamics- Organizational dynamics- Conflict management/team building- Web based systems- Cognitive science- Distributed computing- Network security
<u>Developmental Opportunities:</u> Learning: - Certification in KM (government, DON, academic) (S, Ex) Work-based: - Attend KM conferences, such as IKM, Knowledge World, Enterprise Information Group (all)			<u>Gap Assessment:</u> _____ - _____ = _____ Required Proficiency - Current Proficiency = Gap <u>Gap Mitigation Strategy:</u>																		

Career Area: Knowledge Management**Job Role: Knowledge Manager (KM)**

18	Competency: KM Program/Project Management		Proficiency:		Level:					Skill Topics:											
			Current	Required	E	I	J	S	Ex												
<u>Strategic Value:</u> To provide program/project planning and budgeting, fiscal management, financial analysis and reporting, and schedule/conflict management of DON KM program.			<u>Learning Objectives:</u> Knowledge of and ability to manage KM programs/projects in various sizes, implement goals and realize benefits.		0	1	2	3	4	0	1	2	3	4				X	X	X	- Human factors - Group psychology/group dynamics - Organizational dynamics - Conflict management/team building - Web based systems - Cognitive science - Distributed computing - Network security
<u>Developmental Opportunities:</u> Learning: - Certification in KM (government, DON, academic) (S, Ex) Work-based: - Attend KM conferences, such as IKM, Knowledge World, Enterprise Information Group (all)			<u>Gap Assessment:</u> _____ - _____ = _____ Required Proficiency - Current Proficiency = Gap <u>Gap Mitigation Strategy:</u>																		

Career Area: Knowledge Management**Job Role: Knowledge Manager (KM)**

19	Competency: Cognitive and Decision Science	Proficiency:		Level:					Skill Topics:
		Current	Required	E	I	J	S	Ex	
Strategic Value: <i>To promote organizational learning and innovation.</i>	Learning Objectives: Knowledge of and ability to understand basis of human decision making and thinking, and to develop processes for knowledge collection, organization, sharing and dissemination.	0 1 2 3 4	0 1 2 3 4		X	X	X		- Group psychology - Database design - Decision theory - Systems engineering - Human factors - Object Oriented Programming - Artificial intelligence - Decision aids
	Developmental Opportunities: Learning: - Certification in KM (government, DON, academic) (S, Ex) Work-based: - Attend KM conferences, such as IKM, Knowledge World, Enterprise Information Group (all)	Gap Assessment: _____ - _____ = _____ Required Proficiency - Current Proficiency = Gap Gap Mitigation Strategy:							

Career Area: Knowledge Management**Job Role: Knowledge Manager (KM)**

20	Competency: Leading People		Proficiency:		Level:					Skill Topics:
	Current	Required	E	I	J	S	Ex			
<p><u>Strategic Value:</u></p> <p><i>To design and implement strategies that maximize employee potential and foster high ethical standards in meeting the organization's vision and goals.</i></p>	0 1 2 3 4	0 1 2 3 4					X	X	<p><u>Learning Objectives:</u></p> <p>Knowledge of and ability to inspire and motivate others toward goal accomplishment; to empower people, promote quality through effective use of performance management systems, foster team spirit, trust and pride.</p>	<ul style="list-style-type: none"> - Policy directives - Policy development - Strategic planning - Performance management - Quality management - Team building - Understanding of cultural diversity - Coaching/mentoring - Conflict resolution - Negotiation/labor union relationship
	<p><u>Developmental Opportunities:</u></p> <p>Learning:</p> <ul style="list-style-type: none"> - Certification in KM (government, DON, academic) (S, Ex) <p>Work-based:</p> <ul style="list-style-type: none"> - Attend KM conferences, such as IKM, Knowledge World, Enterprise Information Group (all) 		<p><u>Gap Assessment:</u></p> <p>_____ - _____ = _____</p> <p>Required Proficiency - Current Proficiency = Gap</p> <p><u>Gap Mitigation Strategy:</u></p>							

Career Area: Knowledge Management**Job Role: Knowledge Manager (KM)**

21	Competency: Business Acumen		Proficiency:		Level:					Skill Topics:											
			Current	Required	E	I	J	S	Ex												
<u>Strategic Value:</u> <i>To aid the organization with maximizing its human, financial, material and information resources in a manner that instills public trust and accomplishes the organization's mission.</i>			<u>Learning Objectives:</u> Knowledge of and ability to manage and plan the organization's resource needs and execute strategies to maximize these resources.		0	1	2	3	4	0	1	2	3	4				X	X	X	- Understanding organizational operations - Business processes - Financial management
<u>Developmental Opportunities:</u> Learning: - Certification in KM (government, DON, academic) (S, Ex) Work-based: - Attend KM conferences, such as IKM, Knowledge World, Enterprise Information Group (all)			<u>Gap Assessment:</u> _____ - _____ = _____ Required Proficiency - Current Proficiency = Gap <u>Gap Mitigation Strategy:</u>																		

Career Area: Knowledge Management**Job Role: Knowledge Manager (KM)**

22	Competency: Building Coalition/Communication	Proficiency:	Level:	Skill Topics:						
		Current	Required	E I J S Ex						
<p><u>Strategic Value:</u></p> <p>To explain, advocate, and express facts and ideas in a convincing manner and to negotiate with individuals and groups internally and externally. To be able to develop an expansive professional network with other organizations and to identify the internal and external politics that impact the work of the organization.</p>	<p><u>Learning Objectives:</u></p> <p>Knowledge of and ability to engage the organization's operating units, represent the organization to external constituents, and build coalitions with external constituents.</p>	0 1 2 3 4	0 1 2 3 4					X	X	<p>- Organizational dynamics</p> <p>- Communication</p> <p>- Team building</p>
	<p><u>Developmental Opportunities:</u></p> <p>Learning:</p> <p>- Certification in KM (government, DON, academic) (S, Ex)</p> <p>Work-based:</p> <p>- Attend KM conferences, such as IKM, Knowledge World, Enterprise Information Group (all)</p>	<p><u>Gap Assessment:</u></p> <p>_____ - _____ = _____</p> <p>Required Proficiency - Current Proficiency = Gap</p> <p><u>Gap Mitigation Strategy:</u></p>								

Career Area: Knowledge Management**Job Role: Knowledge Manager (KM)**

23	Competency: Knowledge Life Cycle Management		Proficiency:		Level:					Skill Topics:											
			Current	Required	E	I	J	S	Ex												
<u>Strategic Value:</u> <i>To ensure that an organization's knowledge is appropriate and sufficient.</i>			<u>Learning Objectives:</u> Knowledge of and ability to analyze knowledge to determine when knowledge should be refreshed, archived, or destroyed.		0	1	2	3	4	0	1	2	3	4							- Information management - Content management - Computer products and services analysis
<u>Developmental Opportunities:</u> Learning: - Certification in KM (government, DON, academic) (S, Ex) Work-based: - Attend KM conferences, such as IKM, Knowledge World, Enterprise Information Group (all)			<u>Gap Assessment:</u> _____ - _____ = _____ Required Proficiency - Current Proficiency = Gap <u>Gap Mitigation Strategy:</u>																		

Career Area: Knowledge Management**Job Role: Knowledge Manager (KM)**

24	Competency: Knowledge Mapping	Proficiency:		Level:					Skill Topics:
		Current	Required	E	I	J	S	Ex	
Strategic Value: <i>To structure and manage an organization's knowledge directly and serve as visual directories to other more detailed sources of client knowledge.</i>	Learning Objectives: Knowledge of and ability to provide the organization with a picture of the specific knowledge it requires in order to support its business processes.	0 1 2 3 4	0 1 2 3 4		X	X	X		- Intellectual Capital - Individual Human Capital, Social Capital and Enterprise Capital - Knowledge acquisition, production, transfer, brokering - Information Management
	Developmental Opportunities: Learning: - Certification in KM (government, DON, academic) (S, Ex) Work-based: - Attend KM conferences, such as IKM, Knowledge World, Enterprise Information Group (all)	Gap Assessment: _____ - _____ = _____ Required Proficiency - Current Proficiency = Gap Gap Mitigation Strategy:							

Career Area: Knowledge Management**Job Role: Knowledge Manager (KM)**

25	Competency: Knowledge Transfer		Proficiency:		Level:					Skill Topics:
			Current	Required	E	I	J	S	Ex	
Strategic Value: <i>To ensure critical organizational knowledge is identified and made explicit.</i>	Learning Objectives: Knowledge of and ability to work with individuals and organizational leadership to identify organizational knowledge and their repositories, and to synthesize knowledge.	0 1 2 3 4	0 1 2 3 4	X	X	X	X			- Intellectual Capital - Individual Human Capital, Social Capital and Enterprise Capital - Knowledge acquisition, production, transfer, brokering
	Developmental Opportunities: Learning: - Certification in KM (government, DON, academic) (S, Ex) Work-based: - Attend KM conferences, such as IKM, Knowledge World, Enterprise Information Group (all)	Gap Assessment: _____ - _____ = _____ Required Proficiency - Current Proficiency = Gap Gap Mitigation Strategy:								

Career Area: Knowledge Management**Job Role: Knowledge Systems Engineer (KSE)**

1	Competency: Systems Integration		Proficiency:		Level:					Skill Topics:
			Current	Required	E	I	J	S	Ex	
Strategic Value: <i>To manage the integration of subsystems into a system.</i>	Learning Objectives: Knowledge of and ability to integrate large information systems.	0 1 2 3 4 0 1 2 3 4						X	X	- Integration methods, tools and metrics - System interoperability - Software portability - Software scalability - System security - System testing - DoD and DON Enterprise migration strategies - Specifications and uses of embedded computers
	Developmental Opportunities: Learning: - Certification in KM (government, DON, academic) (S, Ex) Work-based: - Attend KM conferences, such as IKM, Knowledge World, Enterprise Information Group (all)	Gap Assessment: _____ - _____ = _____ Required Proficiency - Current Proficiency = Gap Gap Mitigation Strategy:								

Career Area: Knowledge Management**Job Role: Knowledge Systems Engineer (KSE)**

2	Competency: Information Systems/Network Security	Proficiency:					Level:					Skill Topics:						
<u>Strategic Value:</u> To protect and restore the security of information systems and network services and capabilities; identify and eliminate information systems vulnerabilities to inadvertent disclosure, modification, destruction, or denial of service.	<u>Learning Objectives:</u> Knowledge of and ability to develop, evaluate, coordinate and disseminate security tools and procedures.	Current					Required					E	I	J	S	Ex	<ul style="list-style-type: none">- Information systems- Information systems modeling methods- Capacity planning- Migration strategy development- Customer information system planning, design and modification assistance- Change management and control processes- Development and maintenance tools- Release package planning and status accounting- Documentation audits and reviews- Asset management tools- Configuration management history- Human factors practices and guidelines- Network security issues- Network performance monitoring- Cryptography	
		0	1	2	3	4	0	1	2	3	4	X		X	X			
	<u>Developmental Opportunities:</u> Learning: - NETg Technical Training Courses Work-based: - Serve as an Information System Security Officer (ISSO) or assist the ISSO (J) - Analyze security software, hardware support tools (I) - Conduct or assist in system risk assessments (I, J) - Conduct system vulnerability tests (J) - Partnering with Industry (all)	<u>Gap Assessment:</u> _____ - _____ = _____ Required Proficiency - Current Proficiency = Gap <u>Gap Mitigation Strategy:</u>																

Career Area: Knowledge Management**Job Role: Knowledge Systems Engineer (KSE)**

3 Competency: Architecture		Proficiency:		Level:					Skill Topics:
		Current	Required	E	I	J	S	Ex	
<u>Strategic Value:</u> <i>To provide secure information systems that are efficient, effective, interoperable, scalable, reliable, integrated and affordable.</i>	<u>Learning Objectives:</u> Understanding the operational, systems and technical views of the architecture framework endorsed by DoD, and their application in computer and information systems components.	0 1 2 3 4	0 1 2 3 4		X	X	X		- OMB Memo M-97-16 - C4ISR architecture framework - Process modeling - Data interchange services - Computer systems architecture - System design, including hardware components and configuration - Database management - Distributed processing - Operating Systems - Networks - Systems software - Technical Standards--their role and specific standards in use and adopted by DoD and DON - Cryptographic equipment and systems - DoD Security Architecture (MSL)
	<u>Developmental Opportunities:</u> Learning: - Information Resources Management College, Managing Information Architectures and Infrastructures (all) - Certification in KM (government, DON, academic) (S, Ex) Work-based: - Attend KM conferences, such as IKM, Knowledge World, Enterprise Information Group (all)	<u>Gap Assessment:</u> <div style="text-align: center;"> _____ - _____ = _____ Required Proficiency - Current Proficiency = Gap </div> <u>Gap Mitigation Strategy:</u>							

Career Area: Knowledge Management**Job Role: Knowledge Systems Engineer (KSE)**

4	Competency: Web Development for KM		Proficiency:		Level:					Skill Topics:
<u>Strategic Value:</u> To ensure that Internet/Intranet websites and portals meet requirements, are maintainable, on schedule and within cost.	<u>Learning Objectives:</u> Knowledge of and ability to apply emerging web design methodologies and technologies for developing KM products and systems.	Current	Required	E	I	J	S	Ex	<ul style="list-style-type: none">- DoD policies and guidelines for web development- Website design and structure- Management of internal and external websites- Monitoring website functionality and security- Collection and analysis of website statistics- Testing, troubleshooting and resolving web problems- Evaluating web applications- Network architecture and software- Object oriented technology	
		0 1 2 3 4	0 1 2 3 4	X	X	X	X			
	<u>Developmental Opportunities:</u> Learning: - Certification in KM (government, DON, academic) (S, Ex) Work-based: - Attend KM conferences, such as IKM, Knowledge World, Enterprise Information Group (all)	<u>Gap Assessment:</u> _____ - _____ = _____ Required Proficiency - Current Proficiency = Gap <u>Gap Mitigation Strategy:</u>								

Career Area: Knowledge Management**Job Role: Knowledge Systems Engineer (KSE)**

5	Competency: Knowledge Base Development		Proficiency:		Level:					Skill Topics:
			Current	Required	E	I	J	S	Ex	
Strategic Value: <i>To provide a critical knowledge base repository for decision makers.</i>	Learning Objectives: Knowledge of and ability to collect critical knowledge from subject matter experts and incorporate it into a structured database application.		0 1 2 3 4	0 1 2 3 4		X	X	X		- Requirements definition - Functional specification - Cognitive psychology - Interviewing - Database design - Systems engineering - Intelligent agents - Decision aids - Metadata - Object Oriented Programming
	Developmental Opportunities: Learning: - Certification in KM (government, DON, academic) (S, Ex) Work-based: - Attend KM conferences, such as IKM, Knowledge World, Enterprise Information Group (all)	Gap Assessment: _____ - _____ = _____ Required Proficiency - Current Proficiency = Gap Gap Mitigation Strategy:								

Career Area: Knowledge Management**Job Role: Knowledge Systems Engineer (KSE)**

6 Competency: Software Development		Proficiency:		Level:					Skill Topics:
		Current	Required	E	I	J	S	Ex	
<u>Strategic Value:</u> <i>To ensure that software being developed meets requirements, is maintainable, on schedule and within cost.</i>	<u>Learning Objectives:</u> Knowledge of and ability to apply traditional and emerging design methodologies and programming services for developing software products and systems.	0 1 2 3 4	0 1 2 3 4	X	X	X	X		- DoD policies and guidelines - Database architecture and DBMS - Configuration management - Network architecture and software - Open systems and standards - CASE methodology and tools - Operating systems - Programming languages and coding - Object-oriented technology - Software testing - Quality assurance - Business Process Reengineering - Software reuse - Software metrics
	<u>Developmental Opportunities:</u> Learning: - Certification in KM (government, DON, academic) (S, Ex) Work-based: - Attend KM conferences, such as IKM, Knowledge World, Enterprise Information Group (all)	<u>Gap Assessment:</u> <div style="text-align: center;"> _____ - _____ = _____ Required Proficiency - Current Proficiency = Gap </div> <u>Gap Mitigation Strategy:</u>							

Career Area: Knowledge Management**Job Role: Knowledge Systems Engineer (KSE)**

7	Competency: Electronic Commerce/Electronic Data Interchange	Proficiency:		Level:					Skill Topics:
		Current	Required	E	I	J	S	Ex	
Strategic Value: <i>To conduct business in an integrated and automated paperless information environment.</i>	Learning Objectives: Knowledge of and ability to develop and apply electronic commerce tools and electronic data interchange policy, practices, standards, and procedures.	0 1 2 3 4	0 1 2 3 4		X	X	X		- Electronic mail - Electronic bulletin board systems - Electronic funds transfer - Business Process Evaluation/Reengineering - Economic/Cost benefit analysis - Project planning/development - Enterprise integration/implementation - EC/EDI Standards coordination/development support - Training and awareness
	Developmental Opportunities: Learning: - Certification in KM (government, DON, academic) (S, Ex) Work-based: - Attend KM conferences, such as IKM, Knowledge World, Enterprise Information Group (all)	Gap Assessment: _____ - _____ = _____ Required Proficiency - Current Proficiency = Gap Gap Mitigation Strategy:							

Career Area: Knowledge Management**Job Role: Knowledge Systems Engineer (KSE)**

8	<u>Competency:</u> Content Integration		<u>Proficiency:</u>		<u>Level:</u>					<u>Skill Topics:</u>
			Current	Required	E	I	J	S	Ex	
<u>Strategic Value:</u> <i>To provide the organization a consolidated library of knowledge available to transport across different media.</i>	<u>Learning Objectives:</u> Knowledge of and ability to synthesize organizational knowledge in a manner that allows for organization-wide access.		0 1 2 3 4	0 1 2 3 4		X	X	X		- Information management - Resource management - Computer products and services analysis
	<u>Developmental Opportunities:</u> Learning: - Certification in KM (government, DON, academic) (S, Ex) Work-based: - Attend KM conferences, such as IKM, Knowledge World, Enterprise Information Group (all)	<u>Gap Assessment:</u> _____ - _____ = _____ Required Proficiency - Current Proficiency = Gap <u>Gap Mitigation Strategy:</u>								

Career Area: Knowledge Management**Job Role: Knowledge Systems Engineer (KSE)**

9	Competency: Learning Environment Management		Proficiency:		Level:					Skill Topics:											
			Current	Required	E	I	J	S	Ex												
<u>Strategic Value:</u> <i>To encourage innovation and creativity in the workplace.</i>			<u>Learning Objectives:</u> Knowledge of and ability to encourage innovations, build a work environment and design training methods conducive to continuous learning and sharing knowledge.		0	1	2	3	4	0	1	2	3	4							- Intellectual Capital - Individual Human Capital, Social Capital and Enterprise Capital - Knowledge acquisition, production, transfer, brokering - Information management
<u>Developmental Opportunities:</u> Learning: - Certification in KM (government, DON, academic) (S, Ex) Work-based: - Attend KM conferences, such as IKM, Knowledge World, Enterprise Information Group (all)			<u>Gap Assessment:</u> _____ - _____ = _____ Required Proficiency - Current Proficiency = Gap <u>Gap Mitigation Strategy:</u>																		

Career Area: Knowledge Management**Job Role: Knowledge Systems Engineer (KSE)**

10	Competency: Social Network Analysis	Proficiency:		Level:					Skill Topics:
<u>Strategic Value:</u> To ensure the value of social networks is realized in the KM system.	<u>Learning Objectives:</u> Knowledge of and ability to analyze, map and alter social networks to be included in the design of KM systems to improve knowledge performance.	Current	Required	E	I	J	S	Ex	<ul style="list-style-type: none">- Organizational dynamics- Interviewing- Human factors- Communication networks- Understanding of social interactions group- Social structure- Human behavior analysis- Socigrams- Organizational and cultural factors of knowledge- Knowledge sharing processes- Communities of practice
	0 1 2 3 4	0 1 2 3 4	X	X	X	X			
	<u>Developmental Opportunities:</u> Learning: - Certification in KM (government, DON, academic) (S, Ex) Work-based: - Attend KM conferences, such as IKM, Knowledge World, Enterprise Information Group (all)	<u>Gap Assessment:</u> _____ - _____ = _____ Required Proficiency - Current Proficiency = Gap <u>Gap Mitigation Strategy:</u>							

Career Area: Knowledge Management**Job Role: Knowledge Systems Engineer (KSE)**

11	Competency: KM Concept/Strategy	Proficiency:					Level:					Skill Topics:					
<u>Strategic Value:</u> To use Knowledge Management as strategy to improve productivity as a learning organization.	<u>Learning Objectives:</u> Knowledge of and ability to understand the KM concept and how to insert it into the business strategy development in order to realize the benefits of KM.	Current					Required					E	I	J	S	Ex	- Intellectual Capital - Individual Human Capital, Social Capital and Enterprise Capital - Knowledge acquisition, production, transfer, brokering - Knowledge supply chain - KM process - KM tools - Impacts of KM on business
		0	1	2	3	4	0	1	2	3	4	X	X	X	X	X	
	<u>Developmental Opportunities:</u> Learning: - Certification in KM (government, DON, academic) (S, Ex) Work-based: - Attend KM conferences, such as IKM, Knowledge World, Enterprise Information Group (all)	<u>Gap Assessment:</u> _____ - _____ = _____ Required Proficiency - Current Proficiency = Gap <u>Gap Mitigation Strategy:</u>															

Career Area: Knowledge Management**Job Role: Knowledge Systems Engineer (KSE)**

12	Competency: Business Process Reengineering	Proficiency:		Level:					Skill Topics:
		Current	Required	E	I	J	S	Ex	
Strategic Value: <i>To ensure the organization's methods and processes support enterprise IM/IT requirements, both cost and technical.</i>	Learning Objectives: Knowledge of and ability to apply analytical methods and procedures to review and assess IM/IT processes and procedures to support the development and enhancement of administrative processes, procedures and organizations.	0 1 2 3 4	0 1 2 3 4			X	X	X	- Economic analysis principles - Activity-based costing - DoD and DON budget and procurement processes - BPR methodologies, metrics, tools and techniques - Automated information systems for specific computer projects - Plan and budgetary document development to support requirements
	Developmental Opportunities: Learning: - Certification in KM (government, DON, academic) (S, Ex) - DoD BPR Certificate Program (all) - Information Resources Management College, Reengineering Organizational Processes (all) Work-based: - Attend KM conferences, such as IKM, Knowledge World, Enterprise Information Group (all)	Gap Assessment: _____ - _____ = _____ Required Proficiency - Current Proficiency = Gap Gap Mitigation Strategy:							

Career Area: Knowledge Management**Job Role: Knowledge Systems Engineer (KSE)**

13	Competency: Systems Thinking		Proficiency:		Level:					Skill Topics:
<u>Strategic Value:</u> To build a learning organization by developing the capacity for putting pieces together and seeing the whole.	<u>Learning Objectives:</u> Knowledge of and ability to create structural explanations for why things happen, to apply system archetypes to business situations, and to plan and evaluate actions to improve performance.	Current	Required	E	I	J	S	Ex	<ul style="list-style-type: none">- Scoping- Setting expectations- Data collection and generation- Making systemic sense of data- Building shared understanding & commitment- Identifying intervention- Follow through	
		0 1 2 3 4	0 1 2 3 4	X	X	X	X	X		
	<u>Developmental Opportunities:</u> Learning: <ul style="list-style-type: none">- Certification in KM (government, DON, academic) (S, Ex)- DON Systems Thinking Computer-based Training (all) Work-based: <ul style="list-style-type: none">- Attend KM conferences, such as IKM, Knowledge World, Enterprise Information Group (all)	<u>Gap Assessment:</u> _____ - _____ = _____ Required Current = Gap Proficiency Proficiency <u>Gap Mitigation Strategy:</u>								

Career Area: Knowledge Management**Job Role: Knowledge Systems Engineer (KSE)**

14	Competency: Cognitive and Decision Science	Proficiency:		Level:					Skill Topics:
<u>Strategic Value:</u> To promote organizational learning and innovation.	<u>Learning Objectives:</u> Knowledge of and ability to understand basis of human decision making and thinking, and to develop processes for knowledge collection, organization, sharing and dissemination.	Current	Required	E	I	J	S	Ex	- Group psychology - Database design - Decision theory - Systems engineering - Human factors - Object Oriented Programming - Artificial intelligence - Decision aids
		0 1 2 3 4	0 1 2 3 4		X	X	X		
	<u>Developmental Opportunities:</u> Learning: - Certification in KM (government, DON, academic) (S, Ex) Work-based: - Attend KM conferences, such as IKM, Knowledge World, Enterprise Information Group (all)	<u>Gap Assessment:</u> _____ - _____ = _____ Required Proficiency - Current Proficiency = Gap <u>Gap Mitigation Strategy:</u>							

Career Area: Knowledge Management**Job Role: Knowledge Systems Engineer (KSE)**

15	Competency: Building Coalition/Communication		Proficiency:		Level:					Skill Topics:											
			Current	Required	E	I	J	S	Ex												
<u>Strategic Value:</u> <i>To explain, advocate, and express facts and ideas in a convincing manner and to negotiate with individuals and groups internally and externally. To be able to develop an expansive professional network with other organizations and to identify the internal and external politics that impact the work of the organization.</i>			<u>Learning Objectives:</u> Knowledge of and ability to engage the organization's operating units, represent the organization to external constituents, and build coalitions with external constituents.		0	1	2	3	4	0	1	2	3	4					X	X	- Organizational dynamics - Communication - Team building
<u>Developmental Opportunities:</u> Learning: - Certification in KM (government, DON, academic) (S, Ex) Work-based: - Attend KM conferences, such as IKM, Knowledge World, Enterprise Information Group (all)			<u>Gap Assessment:</u> _____ - _____ = _____ Required Proficiency - Current Proficiency = Gap <u>Gap Mitigation Strategy:</u>																		

Career Area: Knowledge Management**Job Role: Knowledge Process Manager (KPM)**

1	<u>Competency:</u> Knowledge Transfer		<u>Proficiency:</u>		<u>Level:</u>					<u>Skill Topics:</u>
			Current	Required	E	I	J	S	Ex	
<u>Strategic Value:</u> To ensure critical organizational knowledge is identified and made explicit.	<u>Learning Objectives:</u> Knowledge of and ability to work with individuals and organizational leadership to identify organizational knowledge and their repositories, and to synthesize knowledge.	0 1 2 3 4	0 1 2 3 4	X	X	X	X			- Intellectual Capital - Individual Human Capital, Social Capital and Enterprise Capital - Knowledge acquisition, production, transfer, brokering
	<u>Developmental Opportunities:</u> Learning: - Certification in KM (government, DON, academic) (S, Ex) Work-based: - Attend KM conferences, such as IKM, Knowledge World, Enterprise Information Group (all)	<u>Gap Assessment:</u> _____ - _____ = _____ Required Proficiency - Current Proficiency = Gap <u>Gap Mitigation Strategy:</u>								

Career Area: Knowledge Management**Job Role: Knowledge Process Manager (KPM)**

2	<u>Competency:</u> Content Integration		<u>Proficiency:</u>		<u>Level:</u>					<u>Skill Topics:</u>
			Current	Required	E	I	J	S	Ex	
<u>Strategic Value:</u> <i>To provide the organization a consolidated library of knowledge available to transport across different media.</i>	<u>Learning Objectives:</u> Knowledge of and ability to synthesize organizational knowledge in a manner that allows for organization-wide access.		0 1 2 3 4	0 1 2 3 4		X	X	X		- Information management - Resource management - Computer products and services analysis
	<u>Developmental Opportunities:</u> Learning: - Certification in KM (government, DON, academic) (S, Ex) Work-based: - Attend KM conferences, such as IKM, Knowledge World, Enterprise Information Group (all)	<u>Gap Assessment:</u> <div style="display: flex; justify-content: space-between; width: 100%;"> _____ - _____ = _____ </div> <div style="display: flex; justify-content: space-between; width: 100%;"> Required Proficiency - Current Proficiency = Gap </div> <u>Gap Mitigation Strategy:</u>								

Career Area: Knowledge Management**Job Role: Knowledge Process Manager (KPM)**

3	<u>Competency:</u> Knowledge Life Cycle Management		<u>Proficiency:</u>		<u>Level:</u>					<u>Skill Topics:</u>										
			Current	Required	E	I	J	S	Ex											
<u>Strategic Value:</u> To ensure that an organization's knowledge is appropriate and sufficient.			<u>Learning Objectives:</u> Knowledge of and ability to analyze knowledge to determine when knowledge should be refreshed, archived, or destroyed.		0	1	2	3	4	0	1	2	3	4						- Information management - Content management - Computer products and services analysis
<u>Developmental Opportunities:</u> Learning: - Certification in KM (government, DON, academic) (S, Ex) Work-based: - Attend KM conferences, such as IKM, Knowledge World, Enterprise Information Group (all)			<u>Gap Assessment:</u> _____ - _____ = _____ Required Proficiency - Current Proficiency = Gap <u>Gap Mitigation Strategy:</u>																	

Career Area: Knowledge Management**Job Role: Knowledge Process Manager (KPM)**

4	Competency: Knowledge Mapping	Proficiency:		Level:					Skill Topics:
		Current	Required	E	I	J	S	Ex	
<u>Strategic Value:</u> To structure and manage an organization's knowledge directly and serve as visual directories to other more detailed sources of client knowledge.	<u>Learning Objectives:</u> Knowledge of and ability to provide the organization with a picture of the specific knowledge it requires in order to support its business processes.	0 1 2 3 4	0 1 2 3 4		X	X	X		- Intellectual Capital - Individual Human Capital, Social Capital and Enterprise Capital - Knowledge acquisition, production, transfer, brokering - Information Management
	<u>Developmental Opportunities:</u> Learning: - Certification in KM (government, DON, academic) (S, Ex) Work-based: - Attend KM conferences, such as IKM, Knowledge World, Enterprise Information Group (all)	<u>Gap Assessment:</u> _____ - _____ = _____ Required Proficiency - Current Proficiency = Gap <u>Gap Mitigation Strategy:</u>							

Career Area: Knowledge Management**Job Role: Knowledge Process Manager (KPM)**

5	<u>Competency:</u> Learning Environment Management		<u>Proficiency:</u>		<u>Level:</u>					<u>Skill Topics:</u>	
			Current	Required	E	I	J	S	Ex		
<u>Strategic Value:</u> <i>To encourage innovation and creativity in the workplace.</i>			<u>Learning Objectives:</u> Knowledge of and ability to encourage innovations, build a work environment and design training methods conducive to continuous learning and sharing knowledge.		0 1 2 3 4	0 1 2 3 4			X	X	
<u>Developmental Opportunities:</u> Learning: - Certification in KM (government, DON, academic) (S, Ex) Work-based: - Attend KM conferences, such as IKM, Knowledge World, Enterprise Information Group (all)			<u>Gap Assessment:</u> <div style="display: flex; justify-content: space-between; width: 100%;"> _____ - _____ = _____ </div> <div style="display: flex; justify-content: space-between; width: 100%;"> Required Proficiency - Current Proficiency = Gap </div> <u>Gap Mitigation Strategy:</u>								- Intellectual Capital - Individual Human Capital, Social Capital and Enterprise Capital - Knowledge acquisition, production, transfer, brokering - Information management

Career Area: Knowledge Management**Job Role: Knowledge Process Manager (KPM)**

6	Competency: Knowledge Sharing/Reuse		Proficiency:		Level:					Skill Topics:
			Current	Required	E	I	J	S	Ex	
Strategic Value: <i>To encourage sharing and reuse of knowledge and best practices and preserve organizational knowledge beyond attrition.</i>	Learning Objectives: Knowledge of and ability to encourage and facilitate sharing knowledge, such as developing and implementing various approaches for providing incentives for sharing best practices and utilizing IT tools that facilitate sharing and preserving knowledge.	0 1 2 3 4	0 1 2 3 4		X	X	X		<ul style="list-style-type: none"> - Relationship building - Facilitation - Group dynamics - Groupware and collaboration tools - Communication - Critical thinking - Social networks 	
	Developmental Opportunities: Learning: - Certification in KM (government, DON, academic) (S, Ex) Work-based: - Attend KM conferences, such as IKM, Knowledge World, Enterprise Information Group (all)	Gap Assessment: _____ - _____ = _____ Required Proficiency - Current Proficiency = Gap Gap Mitigation Strategy:								

Career Area: Knowledge Management**Job Role: Knowledge Process Manager (KPM)**

7	Competency: Social Network Analysis		Proficiency:		Level:					Skill Topics:
			Current	Required	E	I	J	S	Ex	
<u>Strategic Value:</u> <i>To ensure the value of social networks is realized in the KM system.</i>	<u>Learning Objectives:</u> Knowledge of and ability to analyze, map and alter social networks to be included in the design of KM systems to improve knowledge performance.		0 1 2 3 4	0 1 2 3 4	X	X	X	X		- Organizational dynamics - Interviewing - Human factors - Communication networks - Understanding of social interactions group - Social structure - Human behavior analysis - Socigrams - Organizational and cultural factors of knowledge - Knowledge sharing processes - Communities of practice
	<u>Developmental Opportunities:</u> Learning: - Certification in KM (government, DON, academic) (S, Ex) Work-based: - Attend KM conferences, such as IKM, Knowledge World, Enterprise Information Group (all)	<u>Gap Assessment:</u> _____ - _____ = _____ Required Proficiency - Current Proficiency = Gap <u>Gap Mitigation Strategy:</u>								

Career Area: Knowledge Management**Job Role: Knowledge Process Manager (KPM)**

8	Competency: KM Concept/Strategy		Proficiency:		Level:					Skill Topics:
			Current	Required	E	I	J	S	Ex	
Strategic Value: <i>To use Knowledge Management as strategy to improve productivity as a learning organization.</i>	Learning Objectives: Knowledge of and ability to understand the KM concept and how to insert it into the business strategy development in order to realize the benefits of KM.		0 1 2 3 4	0 1 2 3 4	X	X	X	X	X	- Intellectual Capital - Individual Human Capital, Social Capital and Enterprise Capital - Knowledge acquisition, production, transfer, brokering - Knowledge supply chain - KM process - KM tools - Impacts of KM on business
	Developmental Opportunities: Learning: - Certification in KM (government, DON, academic) (S, Ex) Work-based: - Attend KM conferences, such as IKM, Knowledge World, Enterprise Information Group (all)	Gap Assessment: <div style="display: flex; justify-content: space-between; width: 100%;"> _____ - _____ = _____ </div> <div style="display: flex; justify-content: space-between; width: 100%;"> Required Proficiency - Current Proficiency = Gap </div> Gap Mitigation Strategy:								

Career Area: Knowledge Management**Job Role: Knowledge Process Manager (KPM)**

9	Competency: KM Cultural Transformation		Proficiency:		Level:					Skill Topics:
			Current	Required	E	I	J	S	Ex	
Strategic Value: <i>To promote cultural transformation to accept knowledge sharing as power.</i>	Learning Objectives: Knowledge of and ability to facilitate cultural changes from "knowledge is power" to "knowledge sharing is power" using various tools and techniques.	0 1 2 3 4	0 1 2 3 4				X	X		- Facilitation - Team building - Sociology of knowledge - Collaboration tools - Group dynamics - Incentives and rewards - Concept of organizational learning - Training and awareness
	Developmental Opportunities: Learning: - Certification in KM (government, DON, academic) (S, Ex) Work-based: - Attend KM conferences, such as IKM, Knowledge World, Enterprise Information Group (all)	Gap Assessment: _____ - _____ = _____ Required Proficiency - Current Proficiency = Gap Gap Mitigation Strategy:								

Career Area: Knowledge Management**Job Role: Knowledge Process Manager (KPM)**

10	Competency: Systems Thinking	Proficiency:		Level:					Skill Topics:
<u>Strategic Value:</u> To build a learning organization by developing the capacity for putting pieces together and seeing the whole.	<u>Learning Objectives:</u> Knowledge of and ability to create structural explanations for why things happen, to apply system archetypes to business situations, and to plan and evaluate actions to improve performance.	Current	Required	E	I	J	S	Ex	- Scoping - Setting expectations - Data collection and generation - Making systemic sense of data - Building shared understanding & commitment - Identifying intervention - Follow through
		0 1 2 3 4	0 1 2 3 4	X	X	X	X	X	
	<u>Developmental Opportunities:</u> Developmental Opportunities: Learning: - Certification in KM (government, DON, academic) (S, Ex) - DON Systems Thinking Computer-based Training (all) Work-based: - Attend KM conferences, such as IKM, Knowledge World, Enterprise Information Group (all)	<u>Gap Assessment:</u> _____ - _____ = _____ Required Proficiency - Current Proficiency = Gap <u>Gap Mitigation Strategy:</u>							

Career Area: Knowledge Management**Job Role: Knowledge Process Manager (KPM)**

11	Competency: KM Program/Project Management		Proficiency:		Level:					Skill Topics:											
			Current	Required	E	I	J	S	Ex												
<u>Strategic Value:</u> <i>To provide program/project planning and budgeting, fiscal management, financial analysis and reporting, and schedule/conflict management of DON KM program.</i>			<u>Learning Objectives:</u> Knowledge of and ability to manage KM programs/projects in various sizes, implement goals and realize benefits.		0	1	2	3	4	0	1	2	3	4							- Program management - Project planning/development - Conflict management - Business Process Evaluation/Reengineering - Economic/Cost benefit analysis - Schedule and resource management - Enterprise integration/implementation - Community of practice support - Training and awareness
<u>Developmental Opportunities:</u> Learning: - Certification in KM (government, DON, academic) (S, Ex) Work-based: - Attend KM conferences, such as IKM, Knowledge World, Enterprise Information Group (all)			<u>Gap Assessment:</u> _____ - _____ = _____ Required Proficiency - Current Proficiency = Gap <u>Gap Mitigation Strategy:</u>																		

Career Area: Knowledge Management**Job Role: Knowledge Transfer Engineer (KTE)**

1	<u>Competency:</u> Knowledge Transfer		<u>Proficiency:</u>		<u>Level:</u>					<u>Skill Topics:</u>
			Current	Required	E	I	J	S	Ex	
<u>Strategic Value:</u> To ensure critical organizational knowledge is identified and made explicit.	<u>Learning Objectives:</u> Knowledge of and ability to work with individuals and organizational leadership to identify organizational knowledge and their repositories, and to synthesize knowledge.	0 1 2 3 4	0 1 2 3 4	X	X	X	X			- Intellectual Capital - Individual Human Capital, Social Capital and Enterprise Capital - Knowledge acquisition, production, transfer, brokering
	<u>Developmental Opportunities:</u> Learning: - Certification in KM (government, DON, academic) (S, Ex) Work-based: - Attend KM conferences, such as IKM, Knowledge World, Enterprise Information Group (all)	<u>Gap Assessment:</u> _____ - _____ = _____ Required Proficiency - Current Proficiency = Gap <u>Gap Mitigation Strategy:</u>								

Career Area: Knowledge Management**Job Role: Knowledge Transfer Engineer (KTE)**

2	<u>Competency:</u> Content Integration		<u>Proficiency:</u>		<u>Level:</u>					<u>Skill Topics:</u>
			Current	Required	E	I	J	S	Ex	
<u>Strategic Value:</u> To provide the organization a consolidated library of knowledge available to transport across different media.	<u>Learning Objectives:</u> Knowledge of and ability to synthesize organizational knowledge in a manner that allows for organization-wide access.		0 1 2 3 4	0 1 2 3 4		X	X	X		- Information management - Resource management - Computer products and services analysis
	<u>Developmental Opportunities:</u> Learning: - Certification in KM (government, DON, academic) (S, Ex) Work-based: - Attend KM conferences, such as IKM, Knowledge World, Enterprise Information Group (all)	<u>Gap Assessment:</u> _____ - _____ = _____ Required Proficiency - Current Proficiency = Gap <u>Gap Mitigation Strategy:</u>								

Career Area: Knowledge Management**Job Role: Knowledge Transfer Engineer (KTE)**

3	Competency: Knowledge Mapping	Proficiency:		Level:					Skill Topics:
		Current	Required	E	I	J	S	Ex	
<u>Strategic Value:</u> To structure and manage an organization's knowledge directly and serve as visual directories to other more detailed sources of client knowledge.	<u>Learning Objectives:</u> Knowledge of and ability to provide the organization with a picture of the specific knowledge it requires in order to support its business processes.	0 1 2 3 4	0 1 2 3 4		X	X	X		- Intellectual Capital - Individual Human Capital, Social Capital and Enterprise Capital - Knowledge acquisition, production, transfer, brokering - Information Management
	<u>Developmental Opportunities:</u> Learning: - Certification in KM (government, DON, academic) (S, Ex) Work-based: - Attend KM conferences, such as IKM, Knowledge World, Enterprise Information Group (all)	<u>Gap Assessment:</u> _____ - _____ = _____ Required Proficiency - Current Proficiency = Gap <u>Gap Mitigation Strategy:</u>							

Career Area: Knowledge Management**Job Role: Knowledge Transfer Engineer (KTE)**

4	Competency: Knowledge Sharing/Reuse		Proficiency:		Level:					Skill Topics:
			Current	Required	E	I	J	S	Ex	
Strategic Value: <i>To encourage sharing and reuse of knowledge and best practices and preserve organizational knowledge beyond attrition.</i>	Learning Objectives: Knowledge of and ability to encourage and facilitate sharing knowledge, such as developing and implementing various approaches for providing incentives for sharing best practices and utilizing IT tools that facilitate sharing and preserving knowledge.	0 1 2 3 4	0 1 2 3 4		X	X	X		<ul style="list-style-type: none"> - Relationship building - Facilitation - Group dynamics - Groupware and collaboration tools - Communication - Critical thinking - Social networks 	
	Developmental Opportunities: Learning: - Certification in KM (government, DON, academic) (S, Ex) Work-based: - Attend KM conferences, such as IKM, Knowledge World, Enterprise Information Group (all)	Gap Assessment: _____ - _____ = _____ Required Proficiency - Current Proficiency = Gap Gap Mitigation Strategy:								

Career Area: Knowledge Management**Job Role: Knowledge Transfer Engineer (KTE)**

5	Competency: Social Network Analysis		Proficiency:		Level:					Skill Topics:
<u>Strategic Value:</u> To ensure the value of social networks is realized in the KM system.	<u>Learning Objectives:</u> Knowledge of and ability to analyze, map and alter social networks to be included in the design of KM systems to improve knowledge performance.	Current	Required	E	I	J	S	Ex	<ul style="list-style-type: none">- Organizational dynamics- Interviewing- Human factors- Communication networks- Understanding of social interactions group- Social structure- Human behavior analysis- Socigrams- Organizational and cultural factors of knowledge- Knowledge sharing processes- Communities of practice	
		0 1 2 3 4	0 1 2 3 4	X	X	X	X			
	<u>Developmental Opportunities:</u> Learning: - Certification in KM (government, DON, academic) (S, Ex) Work-based: - Attend KM conferences, such as IKM, Knowledge World, Enterprise Information Group (all)	<u>Gap Assessment:</u> _____ - _____ = _____ Required Proficiency - Current Proficiency = Gap <u>Gap Mitigation Strategy:</u>								

Career Area: Knowledge Management**Job Role: Knowledge Transfer Engineer (KTE)**

6	Competency: KM Concept/Strategy		Proficiency:		Level:					Skill Topics:
			Current	Required	E	I	J	S	Ex	
Strategic Value: <i>To use Knowledge Management as strategy to improve productivity as a learning organization.</i>	Learning Objectives: Knowledge of and ability to understand the KM concept and how to insert it into the business strategy development in order to realize the benefits of KM.		0 1 2 3 4	0 1 2 3 4	X	X	X	X		- Intellectual Capital - Individual Human Capital, Social Capital and Enterprise Capital - Knowledge acquisition, production, transfer, brokering - Knowledge supply chain - KM process - KM tools - Impacts of KM on business
	Developmental Opportunities: Learning: - Certification in KM (government, DON, academic) (S, Ex) Work-based: - Attend KM conferences, such as IKM, Knowledge World, Enterprise Information Group (all)	Gap Assessment: <div style="display: flex; justify-content: space-between; width: 100%;"> _____ - _____ = _____ </div> <div style="display: flex; justify-content: space-between; width: 100%;"> Required Proficiency - Current Proficiency = Gap </div> Gap Mitigation Strategy:								

Career Area: Knowledge Management**Job Role: Knowledge Transfer Engineer (KTE)**

7	Competency: KM Cultural Transformation		Proficiency:		Level:					Skill Topics:
			Current	Required	E	I	J	S	Ex	
Strategic Value: <i>To promote cultural transformation to accept knowledge sharing as power.</i>	Learning Objectives: Knowledge of and ability to facilitate cultural changes from "knowledge is power" to "knowledge sharing is power" using various tools and techniques.	0 1 2 3 4	0 1 2 3 4				X	X		- Facilitation - Team building - Sociology of knowledge - Collaboration tools - Group dynamics - Incentives and rewards - Concept of organizational learning - Training and awareness
	Developmental Opportunities: Learning: - Certification in KM (government, DON, academic) (S, Ex) Work-based: - Attend KM conferences, such as IKM, Knowledge World, Enterprise Information Group (all)	Gap Assessment: _____ - _____ = _____ Required Proficiency - Current Proficiency = Gap Gap Mitigation Strategy:								

Career Area: Knowledge Management**Job Role: Knowledge Transfer Engineer (KTE)**

8	Competency: Systems Thinking		Proficiency:		Level:					Skill Topics:
			Current	Required	E	I	J	S	Ex	
Strategic Value: <i>To build a learning organization by developing the capacity for putting pieces together and seeing the whole.</i>	Learning Objectives: Knowledge of and ability to create structural explanations for why things happen, to apply system archetypes to business situations, and to plan and evaluate actions to improve performance.		0 1 2 3 4	0 1 2 3 4	X	X	X	X		- Scoping - Setting expectations - Data collection and generation - Making systemic sense of data - Building shared understanding & commitment - Identifying intervention - Follow through
	Developmental Opportunities: Learning: - Certification in KM (government, DON, academic) (S, Ex) - DON Systems Thinking Computer-based Training (all) Work-based: - Attend KM conferences, such as IKM, Knowledge World, Enterprise Information Group (all)	Gap Assessment: _____ - _____ = _____ Required Proficiency - Current Proficiency = Gap Gap Mitigation Strategy:								

Career Area: Knowledge Management**Job Role: Knowledge Transfer Engineer (KTE)**

9	Competency: Communities of Practice		Proficiency:		Level:					Skill Topics:
			Current	Required	E	I	J	S	Ex	
Strategic Value: <i>To facilitate communication among members of a community and share knowledge.</i>	Learning Objectives: Knowledge of and ability to facilitate interaction among team members and develop processes to foster real-time collaboration across distributed organizations.		0 1 2 3 4	0 1 2 3 4				X	X	
	Developmental Opportunities: Learning: - Certification in KM (government, DON, academic) (S, Ex) Work-based: - Attend KM conferences, such as IKM, Knowledge World, Enterprise Information Group (all)	Gap Assessment: _____ - _____ = _____ Required Proficiency - Current Proficiency = Gap Gap Mitigation Strategy:					- Human factors - Group psychology/group dynamics - Organizational dynamics - Conflict management/team building - Web based systems - Cognitive science - Distributed computing - Network security			

Career Area: Knowledge Management**Job Role: Knowledge Research Engineer (KRE)**

1	Competency: Content Integration	Proficiency:		Level:					Skill Topics:
		Current	Required	E	I	J	S	Ex	
<u>Strategic Value:</u> <i>To provide the organization a consolidated library of knowledge available to transport across different media.</i>	<u>Learning Objectives:</u> Knowledge of and ability to synthesize organizational knowledge in a manner that allows for organization-wide access.	0 1 2 3 4	0 1 2 3 4		X	X	X		- Information management - Resource management - Computer products and services analysis
	<u>Developmental Opportunities:</u> Learning: - Certification in KM (government, DON, academic) (S, Ex) Work-based: - Attend KM conferences, such as IKM, Knowledge World, Enterprise Information Group (all)	<u>Gap Assessment:</u> _____ - _____ = _____ Required Proficiency - Current Proficiency = Gap <u>Gap Mitigation Strategy:</u>							

Career Area: Knowledge Management**Job Role: Knowledge Research Engineer (KRE)**

2	Competency: Knowledge Life Cycle Management		Proficiency:		Level:					Skill Topics:
	Current	Required	E	I	J	S	Ex			
<u>Strategic Value:</u> <i>To ensure that an organization's knowledge is appropriate and sufficient.</i>	0 1 2 3 4	0 1 2 3 4				X	X			
<u>Learning Objectives:</u> Knowledge of and ability to analyze knowledge to determine when knowledge should be refreshed, archived, or destroyed.										
<u>Developmental Opportunities:</u> Learning: - Certification in KM (government, DON, academic) (S, Ex) Work-based: - Attend KM conferences, such as IKM, Knowledge World, Enterprise Information Group (all)	<u>Gap Assessment:</u> _____ - _____ = _____ Required Proficiency - Current Proficiency = Gap <u>Gap Mitigation Strategy:</u>							- Information management - Content management - Computer products and services analysis		

Career Area: Knowledge Management**Job Role: Knowledge Research Engineer (KRE)**

3	Competency: Knowledge Mapping	Proficiency:		Level:					Skill Topics:
		Current	Required	E	I	J	S	Ex	
<u>Strategic Value:</u> To structure and manage an organization's knowledge directly and serve as visual directories to other more detailed sources of client knowledge.	<u>Learning Objectives:</u> Knowledge of and ability to provide the organization with a picture of the specific knowledge it requires in order to support its business processes.	0 1 2 3 4	0 1 2 3 4		X	X	X		- Intellectual Capital - Individual Human Capital, Social Capital and Enterprise Capital - Knowledge acquisition, production, transfer, brokering - Information Management
	<u>Developmental Opportunities:</u> Learning: - Certification in KM (government, DON, academic) (S, Ex) Work-based: - Attend KM conferences, such as IKM, Knowledge World, Enterprise Information Group (all)	<u>Gap Assessment:</u> _____ - _____ = _____ Required Proficiency - Current Proficiency = Gap <u>Gap Mitigation Strategy:</u>							

Career Area: Knowledge Management**Job Role: Knowledge Research Engineer (KRE)**

4	Competency: Knowledge Sharing/Reuse		Proficiency:		Level:					Skill Topics:
			Current	Required	E	I	J	S	Ex	
Strategic Value: <i>To encourage sharing and reuse of knowledge and best practices and preserve organizational knowledge beyond attrition.</i>	Learning Objectives: Knowledge of and ability to encourage and facilitate sharing knowledge, such as developing and implementing various approaches for providing incentives for sharing best practices and utilizing IT tools that facilitate sharing and preserving knowledge.	0 1 2 3 4	0 1 2 3 4		X	X	X		<ul style="list-style-type: none"> - Relationship building - Facilitation - Group dynamics - Groupware and collaboration tools - Communication - Critical thinking - Social networks 	
	Developmental Opportunities: Learning: - Certification in KM (government, DON, academic) (S, Ex) Work-based: - Attend KM conferences, such as IKM, Knowledge World, Enterprise Information Group (all)	Gap Assessment: _____ - _____ = _____ Required Proficiency - Current Proficiency = Gap Gap Mitigation Strategy:								

Career Area: Knowledge Management**Job Role: Knowledge Research Engineer (KRE)**

5	Competency: Social Network Analysis		Proficiency:		Level:					Skill Topics:
<u>Strategic Value:</u> To ensure the value of social networks is realized in the KM system.	<u>Learning Objectives:</u> Knowledge of and ability to analyze, map and alter social networks to be included in the design of KM systems to improve knowledge performance.	Current	Required	E	I	J	S	Ex	<ul style="list-style-type: none">- Organizational dynamics- Interviewing- Human factors- Communication networks- Understanding of social interactions group- Social structure- Human behavior analysis- Socigrams- Organizational and cultural factors of knowledge- Knowledge sharing processes- Communities of practice	
		0 1 2 3 4	0 1 2 3 4	X	X	X	X			
	<u>Developmental Opportunities:</u> Learning: - Certification in KM (government, DON, academic) (S, Ex) Work-based: - Attend KM conferences, such as IKM, Knowledge World, Enterprise Information Group (all)	<u>Gap Assessment:</u> _____ - _____ = _____ Required Proficiency - Current Proficiency = Gap <u>Gap Mitigation Strategy:</u>								

Career Area: Knowledge Management**Job Role: Knowledge Research Engineer (KRE)**

6	Competency: KM Concept/Strategy		Proficiency:		Level:					Skill Topics:
			Current	Required	E	I	J	S	Ex	
Strategic Value: <i>To use Knowledge Management as strategy to improve productivity as a learning organization.</i>	Learning Objectives: Knowledge of and ability to understand the KM concept and how to insert it into the business strategy development in order to realize the benefits of KM.	0 1 2 3 4	0 1 2 3 4	X	X	X	X			- Intellectual Capital - Individual Human Capital, Social Capital and Enterprise Capital - Knowledge acquisition, production, transfer, brokering - Knowledge supply chain - KM process - KM tools - Impacts of KM on business
	Developmental Opportunities: Learning: - Certification in KM (government, DON, academic) (S, Ex) Work-based: - Attend KM conferences, such as IKM, Knowledge World, Enterprise Information Group (all)	Gap Assessment: _____ - _____ = _____ Required Proficiency - Current Proficiency = Gap Gap Mitigation Strategy:								

Career Area: Knowledge Management**Job Role: Knowledge Research Engineer (KRE)**

7	Competency: KM Cultural Transformation		Proficiency:		Level:					Skill Topics:
			Current	Required	E	I	J	S	Ex	
Strategic Value: <i>To promote cultural transformation to accept knowledge sharing as power.</i>	Learning Objectives: Knowledge of and ability to facilitate cultural changes from "knowledge is power" to "knowledge sharing is power" using various tools and techniques.	0 1 2 3 4	0 1 2 3 4				X	X		- Facilitation - Team building - Sociology of knowledge - Collaboration tools - Group dynamics - Incentives and rewards - Concept of organizational learning - Training and awareness
	Developmental Opportunities: Learning: - Certification in KM (government, DON, academic) (S, Ex) Work-based: - Attend KM conferences, such as IKM, Knowledge World, Enterprise Information Group (all)	Gap Assessment: _____ - _____ = _____ Required Proficiency - Current Proficiency = Gap Gap Mitigation Strategy:								

Career Area: Knowledge Management**Job Role: Knowledge Research Engineer (KRE)**

8	Competency: Systems Thinking		Proficiency:		Level:					Skill Topics:
			Current	Required	E	I	J	S	Ex	
Strategic Value: <i>To build a learning organization by developing the capacity for putting pieces together and seeing the whole.</i>	Learning Objectives: Knowledge of and ability to create structural explanations for why things happen, to apply system archetypes to business situations, and to plan and evaluate actions to improve performance.	0 1 2 3 4 0 1 2 3 4	X	X	X	X				- Scoping - Setting expectations - Data collection and generation - Making systemic sense of data - Building shared understanding & commitment - Identifying intervention - Follow through
	Developmental Opportunities: Learning: - Certification in KM (government, DON, academic) (S, Ex) - DON Systems Thinking Computer-based Training (all) Work-based: - Attend KM conferences, such as IKM, Knowledge World, Enterprise Information Group (all)	Gap Assessment: _____ - _____ = _____ Required Proficiency - Current Proficiency = Gap Gap Mitigation Strategy:								

Career Area: Knowledge Management**Job Role: Knowledge Life Cycle Engineer (KLE)**

1	Competency: Content Integration	Proficiency:		Level:					Skill Topics:
		Current	Required	E	I	J	S	Ex	
<u>Strategic Value:</u> <i>To provide the organization a consolidated library of knowledge available to transport across different media.</i>	<u>Learning Objectives:</u> Knowledge of and ability to synthesize organizational knowledge in a manner that allows for organization-wide access.	0 1 2 3 4	0 1 2 3 4		X	X	X		- Information management - Resource management - Computer products and services analysis
	<u>Developmental Opportunities:</u> Learning: - Certification in KM (government, DON, academic) (S, Ex) Work-based: - Attend KM conferences, such as IKM, Knowledge World, Enterprise Information Group (all)	<u>Gap Assessment:</u> _____ - _____ = _____ Required Proficiency - Current Proficiency = Gap <u>Gap Mitigation Strategy:</u>							

Career Area: Knowledge Management**Job Role: Knowledge Life Cycle Engineer (KLE)**

2	Competency: Knowledge Life Cycle Management		Proficiency:		Level:					Skill Topics:
	Current	Required	E	I	J	S	Ex			
<u>Strategic Value:</u> <i>To ensure that an organization's knowledge is appropriate and sufficient.</i>	0 1 2 3 4	0 1 2 3 4				X	X			
<u>Learning Objectives:</u> Knowledge of and ability to analyze knowledge to determine when knowledge should be refreshed, archived, or destroyed.										
<u>Developmental Opportunities:</u> Learning: - Certification in KM (government, DON, academic) (S, Ex) Work-based: - Attend KM conferences, such as IKM, Knowledge World, Enterprise Information Group (all)	<u>Gap Assessment:</u> _____ - _____ = _____ Required Proficiency - Current Proficiency = Gap <u>Gap Mitigation Strategy:</u>							- Information management - Content management - Computer products and services analysis		

Career Area: Knowledge Management**Job Role: Knowledge Life Cycle Engineer (KLE)**

3	Competency: Knowledge Mapping	Proficiency:		Level:					Skill Topics:
		Current	Required	E	I	J	S	Ex	
<u>Strategic Value:</u> To structure and manage an organization's knowledge directly and serve as visual directories to other more detailed sources of client knowledge.	<u>Learning Objectives:</u> Knowledge of and ability to provide the organization with a picture of the specific knowledge it requires in order to support its business processes.	0 1 2 3 4	0 1 2 3 4		X	X	X		- Intellectual Capital - Individual Human Capital, Social Capital and Enterprise Capital - Knowledge acquisition, production, transfer, brokering - Information Management
	<u>Developmental Opportunities:</u> Learning: - Certification in KM (government, DON, academic) (S, Ex) Work-based: - Attend KM conferences, such as IKM, Knowledge World, Enterprise Information Group (all)	<u>Gap Assessment:</u> _____ - _____ = _____ Required Proficiency - Current Proficiency = Gap <u>Gap Mitigation Strategy:</u>							

Career Area: Knowledge Management**Job Role: Knowledge Life Cycle Engineer (KLE)**

4	Competency: Knowledge Sharing/Reuse		Proficiency:		Level:					Skill Topics:
			Current	Required	E	I	J	S	Ex	
Strategic Value: <i>To encourage sharing and reuse of knowledge and best practices and preserve organizational knowledge beyond attrition.</i>	Learning Objectives: Knowledge of and ability to encourage and facilitate sharing knowledge, such as developing and implementing various approaches for providing incentives for sharing best practices and utilizing IT tools that facilitate sharing and preserving knowledge.	0 1 2 3 4	0 1 2 3 4		X	X	X			- Relationship building - Facilitation - Group dynamics - Groupware and collaboration tools - Communication - Critical thinking - Social networks
	Developmental Opportunities: Learning: - Certification in KM (government, DON, academic) (S, Ex) Work-based: - Attend KM conferences, such as IKM, Knowledge World, Enterprise Information Group (all)	Gap Assessment: _____ - _____ = _____ Required Proficiency - Current Proficiency = Gap Gap Mitigation Strategy:								

Career Area: Knowledge Management**Job Role: Knowledge Life Cycle Engineer (KLE)**

5	Competency: Social Network Analysis		Proficiency:		Level:					Skill Topics:
			Current	Required	E	I	J	S	Ex	
<u>Strategic Value:</u> To ensure the value of social networks is realized in the KM system.	<u>Learning Objectives:</u> Knowledge of and ability to analyze, map and alter social networks to be included in the design of KM systems to improve knowledge performance.		0 1 2 3 4	0 1 2 3 4	X	X	X	X		- Organizational dynamics - Interviewing - Human factors - Communication networks - Understanding of social interactions group - Social structure - Human behavior analysis - Socigrams - Organizational and cultural factors of knowledge - Knowledge sharing processes - Communities of practice
	<u>Developmental Opportunities:</u> Learning: - Certification in KM (government, DON, academic) (S, Ex) Work-based: - Attend KM conferences, such as IKM, Knowledge World, Enterprise Information Group (all)	<u>Gap Assessment:</u> _____ - _____ = _____ Required Proficiency - Current Proficiency = Gap <u>Gap Mitigation Strategy:</u>								

Career Area: Knowledge Management**Job Role: Knowledge Life Cycle Engineer (KLE)**

6	Competency: KM Concept/Strategy		Proficiency:		Level:					Skill Topics:										
			Current	Required	E	I	J	S	Ex											
<u>Strategic Value:</u> <i>To use Knowledge Management as strategy to improve productivity as a learning organization.</i>			<u>Learning Objectives:</u> Knowledge of and ability to understand the KM concept and how to insert it into the business strategy development in order to realize the benefits of KM.		0	1	2	3	4	0	1	2	3	4	X	X	X	X		- Intellectual Capital - Individual Human Capital, Social Capital and Enterprise Capital - Knowledge acquisition, production, transfer, brokering - Knowledge supply chain - KM process - KM tools - Impacts of KM on business
<u>Developmental Opportunities:</u> Learning: - Certification in KM (government, DON, academic) (S, Ex) Work-based: - Attend KM conferences, such as IKM, Knowledge World, Enterprise Information Group (all)			<u>Gap Assessment:</u> _____ - _____ = _____ Required Proficiency - Current Proficiency = Gap <u>Gap Mitigation Strategy:</u>																	

Career Area: Knowledge Management**Job Role: Knowledge Life Cycle Engineer (KLE)**

7	Competency: KM Cultural Transformation		Proficiency:		Level:					Skill Topics:	
			Current	Required	E	I	J	S	Ex		
<u>Strategic Value:</u> To promote cultural transformation to accept knowledge sharing as power.			<u>Learning Objectives:</u> Knowledge of and ability to facilitate cultural changes from "knowledge is power" to "knowledge sharing is power" using various tools and techniques.		0 1 2 3 4	0 1 2 3 4			X	X	- Facilitation - Team building - Sociology of knowledge - Collaboration tools - Group dynamics - Incentives and rewards - Concept of organizational learning - Training and awareness
<u>Developmental Opportunities:</u> Learning: - Certification in KM (government, DON, academic) (S, Ex) Work-based: - Attend KM conferences, such as IKM, Knowledge World, Enterprise Information Group (all)			<u>Gap Assessment:</u> _____ - _____ = _____ Required Proficiency - Current Proficiency = Gap <u>Gap Mitigation Strategy:</u>								

Career Area: Knowledge Management**Job Role: Knowledge Life Cycle Engineer (KLE)**

8	Competency: Systems Thinking		Proficiency:		Level:					Skill Topics:
			Current	Required	E	I	J	S	Ex	
Strategic Value: <i>To build a learning organization by developing the capacity for putting pieces together and seeing the whole.</i>	Learning Objectives: Knowledge of and ability to create structural explanations for why things happen, to apply system archetypes to business situations, and to plan and evaluate actions to improve performance.		0 1 2 3 4	0 1 2 3 4	X	X	X	X		- Scoping - Setting expectations - Data collection and generation - Making systemic sense of data - Building shared understanding & commitment - Identifying intervention - Follow through
	Developmental Opportunities: Learning: - Certification in KM (government, DON, academic) (S, Ex) - DON Systems Thinking Computer-based Training (all) Work-based: - Attend KM conferences, such as IKM, Knowledge World, Enterprise Information Group (all)	Gap Assessment: <div style="display: flex; justify-content: space-between; align-items: center;"> <div>_____</div> <div>-</div> <div>_____</div> <div>=</div> <div>_____</div> </div> <div style="display: flex; justify-content: space-between; align-items: center; margin-top: 10px;"> <div>Required Proficiency</div> <div>-</div> <div>Current Proficiency</div> <div>=</div> <div>Gap</div> </div> Gap Mitigation Strategy:								

Career Area: Knowledge Management**Job Role: Knowledge Life Cycle Engineer (KLE)**

9	Competency: Communities of Practice		Proficiency:		Level:					Skill Topics:
			Current	Required	E	I	J	S	Ex	
Strategic Value: <i>To facilitate communication among members of a community and share knowledge.</i>	Learning Objectives: Knowledge of and ability to facilitate interaction among team members and develop processes to foster real-time collaboration across distributed organizations.	0 1 2 3 4 0 1 2 3 4					X	X		- Human factors - Group psychology/group dynamics - Organizational dynamics - Conflict management/team building - Web based systems - Cognitive science - Distributed computing - Network security
	Developmental Opportunities: Learning: - Certification in KM (government, DON, academic) (S, Ex) Work-based: - Attend KM conferences, such as IKM, Knowledge World, Enterprise Information Group (all)	Gap Assessment: _____ - _____ = _____ Required Proficiency - Current Proficiency = Gap					Gap Mitigation Strategy:			

Career Area: Knowledge Management**Job Role: Knowledge Community Leader (KCL)**

1	Competency: Web Development for KM	Proficiency:		Level:					Skill Topics:
<u>Strategic Value:</u> To ensure that Internet/Intranet websites and portals meet requirements, are maintainable, on schedule and within cost.	<u>Learning Objectives:</u> Knowledge of and ability to apply emerging web design methodologies and technologies for developing KM products and systems.	Current	Required	E	I	J	S	Ex	- DoD policies and guidelines for web development - Website design and structure - Management of internal and external websites - Monitoring website functionality and security - Collection and analysis of website statistics - Testing, troubleshooting and resolving web problems - Evaluating web applications - Network architecture and software - Object oriented technology
		0 1 2 3 4	0 1 2 3 4	X	X	X	X		
	<u>Developmental Opportunities:</u> Learning: - Certification in KM (government, DON, academic) (S, Ex) Work-based: - Attend KM conferences, such as IKM, Knowledge World, Enterprise Information Group (all)	<u>Gap Assessment:</u> _____ - _____ = _____ Required Proficiency - Current Proficiency = Gap <u>Gap Mitigation Strategy:</u>							

Career Area: Knowledge Management**Job Role: Knowledge Community Leader (KCL)**

2	Competency: Knowledge Transfer		Proficiency:		Level:					Skill Topics:
	Current	Required	E	I	J	S	Ex			
<u>Strategic Value:</u> <i>To ensure critical organizational knowledge is identified and made explicit.</i>	0 1 2 3 4	0 1 2 3 4	X	X	X	X				
<u>Learning Objectives:</u> Knowledge of and ability to work with individuals and organizational leadership to identify organizational knowledge and their repositories, and to synthesize knowledge.										
<u>Developmental Opportunities:</u> Learning: - Certification in KM (government, DON, academic) (S, Ex) Work-based: - Attend KM conferences, such as IKM, Knowledge World, Enterprise Information Group (all)	<u>Gap Assessment:</u> _____ - _____ = _____ Required Proficiency - Current Proficiency = Gap <u>Gap Mitigation Strategy:</u>							- Intellectual Capital - Individual Human Capital, Social Capital and Enterprise Capital - Knowledge acquisition, production, transfer, brokering		

Career Area: Knowledge Management**Job Role: Knowledge Community Leader (KCL)**

3	<u>Competency:</u> Content Integration		<u>Proficiency:</u>		<u>Level:</u>					<u>Skill Topics:</u>
			Current	Required	E	I	J	S	Ex	
<u>Strategic Value:</u> To provide the organization a consolidated library of knowledge available to transport across different media.	<u>Learning Objectives:</u> Knowledge of and ability to synthesize organizational knowledge in a manner that allows for organization-wide access.		0 1 2 3 4	0 1 2 3 4		X	X	X		- Information management - Resource management - Computer products and services analysis
	<u>Developmental Opportunities:</u> Learning: - Certification in KM (government, DON, academic) (S, Ex) Work-based: - Attend KM conferences, such as IKM, Knowledge World, Enterprise Information Group (all)	<u>Gap Assessment:</u> _____ - _____ = _____ Required Proficiency - Current Proficiency = Gap <u>Gap Mitigation Strategy:</u>								

Career Area: Knowledge Management**Job Role: Knowledge Community Leader (KCL)**

4	<u>Competency:</u> Knowledge Life Cycle Management		<u>Proficiency:</u>		<u>Level:</u>					<u>Skill Topics:</u>											
			Current	Required	E	I	J	S	Ex												
<u>Strategic Value:</u> To ensure that an organization's knowledge is appropriate and sufficient.			<u>Learning Objectives:</u> Knowledge of and ability to analyze knowledge to determine when knowledge should be refreshed, archived, or destroyed.		0	1	2	3	4	0	1	2	3	4				X	X		- Information management - Content management - Computer products and services analysis
<u>Developmental Opportunities:</u> Learning: - Certification in KM (government, DON, academic) (S, Ex) Work-based: - Attend KM conferences, such as IKM, Knowledge World, Enterprise Information Group (all)			<u>Gap Assessment:</u> _____ - _____ = _____ Required Proficiency - Current Proficiency = Gap <u>Gap Mitigation Strategy:</u>																		

Career Area: Knowledge Management**Job Role: Knowledge Community Leader (KCL)**

5	Competency: Knowledge Mapping	Proficiency:		Level:					Skill Topics:
		Current	Required	E	I	J	S	Ex	
<u>Strategic Value:</u> To structure and manage an organization's knowledge directly and serve as visual directories to other more detailed sources of client knowledge.	<u>Learning Objectives:</u> Knowledge of and ability to provide the organization with a picture of the specific knowledge it requires in order to support its business processes.	0 1 2 3 4	0 1 2 3 4		X	X	X		- Intellectual Capital - Individual Human Capital, Social Capital and Enterprise Capital - Knowledge acquisition, production, transfer, brokering - Information Management
	<u>Developmental Opportunities:</u> Learning: - Certification in KM (government, DON, academic) (S, Ex) Work-based: - Attend KM conferences, such as IKM, Knowledge World, Enterprise Information Group (all)	<u>Gap Assessment:</u> _____ - _____ = _____ Required Proficiency - Current Proficiency = Gap <u>Gap Mitigation Strategy:</u>							

Career Area: Knowledge Management**Job Role: Knowledge Community Leader (KCL)**

6	Competency: Learning Environment Management		Proficiency:		Level:					Skill Topics:											
			Current	Required	E	I	J	S	Ex												
<u>Strategic Value:</u> <i>To encourage innovation and creativity in the workplace.</i>			<u>Learning Objectives:</u> Knowledge of and ability to encourage innovations, build a work environment and design training methods conducive to continuous learning and sharing knowledge.		0	1	2	3	4	0	1	2	3	4							- Intellectual Capital - Individual Human Capital, Social Capital and Enterprise Capital - Knowledge acquisition, production, transfer, brokering - Information Management
<u>Developmental Opportunities:</u> Learning: - Certification in KM (government, DON, academic) (S, Ex) Work-based: - Attend KM conferences, such as IKM, Knowledge World, Enterprise Information Group (all)			<u>Gap Assessment:</u> _____ - _____ = _____ Required Proficiency - Current Proficiency = Gap <u>Gap Mitigation Strategy:</u>																		

Career Area: Knowledge Management**Job Role: Knowledge Community Leader (KCL)**

7	Competency: Knowledge Sharing/Reuse		Proficiency:		Level:					Skill Topics:
	Current	Required	E	I	J	S	Ex			
<u>Strategic Value:</u> <i>To encourage sharing and reuse of knowledge and best practices and preserve organizational knowledge beyond attrition.</i>	0 1 2 3 4	0 1 2 3 4		X	X	X				
<u>Learning Objectives:</u> Knowledge of and ability to encourage and facilitate sharing knowledge, such as developing and implementing various approaches for providing incentives for sharing best practices and utilizing IT tools that facilitate sharing and preserving knowledge.										
<u>Developmental Opportunities:</u> Learning: - Certification in KM (government, DON, academic) (S, Ex) Work-based: - Attend KM conferences, such as IKM, Knowledge World, Enterprise Information Group (all)	<u>Gap Assessment:</u> _____ - _____ = _____ Required Proficiency - Current Proficiency = Gap <u>Gap Mitigation Strategy:</u>							- Relationship building - Facilitation - Group dynamics - Groupware and collaboration tools - Communication - Critical thinking - Social networks		

Career Area: Knowledge Management**Job Role: Knowledge Community Leader (KCL)**

8	Competency: Social Network Analysis	Proficiency:		Level:					Skill Topics:								
<u>Strategic Value:</u> To ensure the value of social networks is realized in the KM system.	<u>Learning Objectives:</u> Knowledge of and ability to analyze, map and alter social networks to be included in the design of KM systems to improve knowledge performance.	Current		Required		E	I	J	S	Ex	<ul style="list-style-type: none">- Organizational dynamics- Interviewing- Human factors- Communication networks- Understanding of social interactions group- Social structure- Human behavior analysis- Socigrams- Organizational and cultural factors of knowledge- Knowledge sharing processes- Communities of practice						
		0	1	2	3	4	0	1	2	3		4	X	X	X	X	
	<u>Developmental Opportunities:</u> Learning: - Certification in KM (government, DON, academic) (S, Ex) Work-based: - Attend KM conferences, such as IKM, Knowledge World, Enterprise Information Group (all)	<u>Gap Assessment:</u> _____ - _____ = _____ Required Proficiency - Current Proficiency = Gap <u>Gap Mitigation Strategy:</u>															

Career Area: Knowledge Management**Job Role: Knowledge Community Leader (KCL)**

9	Competency: Performance Metrics		Proficiency:		Level:					Skill Topics:
	Current	Required	E	I	J	S	Ex			
<u>Strategic Value:</u> To identify qualitative and quantitative measures of effectiveness in support of DON IM/IT programs.	<u>Learning Objectives:</u> Knowledge of and ability to apply the tools, methodologies, and procedures to measure or evaluate enterprise IM/IT performance.		0 1 2 3 4	0 1 2 3 4		X	X	X	- Activity-based costing - Earned value management - Outcomes-based performance management/Benefits realization - Balanced Scorecard concept - Malcomb Baldrige Performance Excellence Criteria - Productivity enhancement	
	<u>Developmental Opportunities:</u> Learning: - Certification in KM (government, DON, academic) (S, Ex) Work-based: - Attend KM conferences, such as IKM, Knowledge World, Enterprise Information Group (all)		<u>Gap Assessment:</u> _____ - _____ = _____ Required Proficiency - Current Proficiency = Gap <u>Gap Mitigation Strategy:</u>							

Career Area: Knowledge Management**Job Role: Knowledge Community Leader (KCL)**

10	Competency: KM Concept/Strategy		Proficiency:		Level:					Skill Topics:										
			Current	Required	E	I	J	S	Ex											
<u>Strategic Value:</u> <i>To use Knowledge Management as strategy to improve productivity as a learning organization.</i>			<u>Learning Objectives:</u> Knowledge of and ability to understand the KM concept and how to insert it into the business strategy development in order to realize the benefits of KM.		0	1	2	3	4	0	1	2	3	4	X	X	X	X		- Intellectual Capital - Individual Human Capital, Social Capital and Enterprise Capital - Knowledge acquisition, production, transfer, brokering - Knowledge supply chain - KM process - KM tools - Impacts of KM on business
<u>Developmental Opportunities:</u> Learning: - Certification in KM (government, DON, academic) (S, Ex) Work-based: - Attend KM conferences, such as IKM, Knowledge World, Enterprise Information Group (all)			<u>Gap Assessment:</u> _____ - _____ = _____ Required Proficiency - Current Proficiency = Gap <u>Gap Mitigation Strategy:</u>																	

Career Area: Knowledge Management**Job Role: Knowledge Community Leader (KCL)**

11	Competency: Business Process Reengineering	Proficiency:		Level:					Skill Topics:
<u>Strategic Value:</u> To ensure the organization's methods and processes support enterprise IM/IT requirements, both cost and technical.	<u>Learning Objectives:</u> Knowledge of and ability to apply analytical methods and procedures to review and assess IM/IT processes and procedures to support the development and enhancement of administrative processes, procedures and organizations.	Current	Required	E	I	J	S	Ex	- Economic analysis principles - Activity-based costing - DoD and DON budget and procurement processes - BPR methodologies, metrics, tools and techniques - Automated information systems for specific computer projects - Plan and budgetary document development to support requirements
		0 1 2 3 4	0 1 2 3 4			X	X	X	
	<u>Developmental Opportunities:</u> Learning: - Certification in KM (government, DON, academic) (S, Ex) - DoD BPR Certificate Program (all) - Information Resources Management College, Reengineering Organizational Processes (all) Work-based: - Attend KM conferences, such as IKM, Knowledge World, Enterprise Information Group (all)	<u>Gap Assessment:</u> _____ - _____ = _____ Required Proficiency - Current Proficiency = Gap <u>Gap Mitigation Strategy:</u>							

Career Area: Knowledge Management**Job Role: Knowledge Community Leader (KCL)**

12	Competency: Facilitation and Arbitration		Proficiency:		Level:					Skill Topics:											
			Current	Required	E	I	J	S	Ex												
<u>Strategic Value:</u> <i>To build effective communities of practice to share knowledge and encourage innovation.</i>			<u>Learning Objectives:</u> Knowledge of and ability to work with disparate groups of people and build a single team vision, goals and objectives and to build strong communities of practice.		0	1	2	3	4	0	1	2	3	4				X	X	X	- Negotiating - Counseling - Group dynamics - Situational leadership - Organizational behavior
<u>Developmental Opportunities:</u> Learning: - Certification in KM (government, DON, academic) (S, Ex) Work-based: - Attend KM conferences, such as IKM, Knowledge World, Enterprise Information Group (all)			<u>Gap Assessment:</u> _____ - _____ = _____ Required Proficiency - Current Proficiency = Gap <u>Gap Mitigation Strategy:</u>																		

Career Area: Knowledge Management**Job Role: Knowledge Community Leader (KCL)**

13	Competency: Systems Thinking		Proficiency:		Level:					Skill Topics:
			Current	Required	E	I	J	S	Ex	
Strategic Value: <i>To build a learning organization by developing the capacity for putting pieces together and seeing the whole.</i>	Learning Objectives: Knowledge of and ability to create structural explanations for why things happen, to apply system archetypes to business situations, and to plan and evaluate actions to improve performance.		0 1 2 3 4	0 1 2 3 4	X	X	X	X		- Scoping - Setting expectations - Data collection and generation - Making systemic sense of data - Building shared understanding & commitment - Identifying intervention - Follow through
	Developmental Opportunities: Learning: - Certification in KM (government, DON, academic) (S, Ex) - DON Systems Thinking Computer-based Training (all) Work-based: - Attend KM conferences, such as IKM, Knowledge World, Enterprise Information Group (all)	Gap Assessment: _____ - _____ = _____ Required Proficiency - Current Proficiency = Gap Gap Mitigation Strategy:								

Career Area: Knowledge Management**Job Role: Knowledge Community Leader (KCL)**

14	<u>Competency:</u> Communities of Practice		<u>Proficiency:</u>		<u>Level:</u>					<u>Skill Topics:</u>											
			Current	Required	E	I	J	S	Ex												
<u>Strategic Value:</u> To facilitate communication among members of a community and share knowledge.			<u>Learning Objectives:</u> Knowledge of and ability to facilitate interaction among team members and develop processes to foster real-time collaboration across distributed organizations.		0	1	2	3	4	0	1	2	3	4							- Human factors - Group psychology/group dynamics - Organizational dynamics - Conflict management/team building - Web based systems - Cognitive science - Distributed computing - Network security
<u>Developmental Opportunities:</u> Learning: - Certification in KM (government, DON, academic) (S, Ex) Work-based: - Attend KM conferences, such as IKM, Knowledge World, Enterprise Information Group (all)			<u>Gap Assessment:</u> _____ - _____ = _____ Required Proficiency - Current Proficiency = Gap <u>Gap Mitigation Strategy:</u>																		

Career Area: Knowledge Management**Job Role: Knowledge Community Leader (KCL)**

15	Competency: Leading People		Proficiency:		Level:					Skill Topics:
			Current	Required	E	I	J	S	Ex	
Strategic Value: <i>To design and implement strategies that maximize employee potential and foster high ethical standards in meeting the organization's vision and goals.</i>	Learning Objectives: Knowledge of and ability to inspire and motivate others toward goal accomplishment; to empower people, promote quality through effective use of performance management systems, foster team spirit, trust and pride.	0 1 2 3 4 0 1 2 3 4						X	X	- Policy directives - Policy development - Strategic planning - Performance management - Quality management - Team building - Understanding of cultural diversity - Coaching/mentoring - Conflict resolution - Negotiation/labor union relationship
	Developmental Opportunities: Learning: - Certification in KM (government, DON, academic) (S, Ex) Work-based: - Attend KM conferences, such as IKM, Knowledge World, Enterprise Information Group (all)	Gap Assessment: _____ - _____ = _____ Required Proficiency - Current Proficiency = Gap Gap Mitigation Strategy:								

Career Area: Knowledge Management**Job Role: Knowledge Community Leader (KCL)**

16	Competency: Building Coalition/Communication	Proficiency:		Level:					Skill Topics:
		Current	Required	E	I	J	S	Ex	
Strategic Value: <i>To explain, advocate, and express facts and ideas in a convincing manner and to negotiate with individuals and groups internally and externally. To be able to develop an expansive professional network with other organizations and to identify the internal and external politics that impact the work of the organization.</i>	Learning Objectives: Knowledge of and ability to engage the organization's operating units, represent the organization to external constituents, and build coalitions with external constituents.	0 1 2 3 4	0 1 2 3 4				X	X	- Organizational dynamics - Communication - Team building
	Developmental Opportunities: Learning: - Certification in KM (government, DON, academic) (S, Ex) Work-based: - Attend KM conferences, such as IKM, Knowledge World, Enterprise Information Group (all)	Gap Assessment: _____ - _____ = _____ Required Proficiency - Current Proficiency = Gap Gap Mitigation Strategy:							

Career Area: Knowledge Management**Job Role: Intellectual Capital Manager (ICM)**

1	Competency: Learning Environment Management		Proficiency:		Level:					Skill Topics:											
			Current	Required	E	I	J	S	Ex												
<u>Strategic Value:</u> <i>To encourage innovation and creativity in the workplace.</i>			<u>Learning Objectives:</u> Knowledge of and ability to encourage innovations, build a work environment and design training methods conducive to continuous learning and sharing knowledge.		0	1	2	3	4	0	1	2	3	4							- Intellectual Capital - Individual Human Capital, Social Capital and Enterprise Capital - Knowledge acquisition, production, transfer, brokering - Information management
<u>Developmental Opportunities:</u> Learning: - Certification in KM (government, DON, academic) (S, Ex) Work-based: - Attend KM conferences, such as IKM, Knowledge World, Enterprise Information Group (all)			<u>Gap Assessment:</u> _____ - _____ = _____ Required Proficiency - Current Proficiency = Gap <u>Gap Mitigation Strategy:</u>																		

Career Area: Knowledge Management**Job Role: Intellectual Capital Manager (ICM)**

2	Competency: Knowledge Sharing/Reuse		Proficiency:		Level:					Skill Topics:
	Current	Required	E	I	J	S	Ex			
<u>Strategic Value:</u> <i>To encourage sharing and reuse of knowledge and best practices and preserve organizational knowledge beyond attrition.</i>	0 1 2 3 4	0 1 2 3 4		X	X	X				
<u>Learning Objectives:</u> Knowledge of and ability to encourage and facilitate sharing knowledge, such as developing and implementing various approaches for providing incentives for sharing best practices and utilizing IT tools that facilitate sharing and preserving knowledge.										
<u>Developmental Opportunities:</u> Learning: - Certification in KM (government, DON, academic) (S, Ex) Work-based: - Attend KM conferences, such as IKM, Knowledge World, Enterprise Information Group (all)	<u>Gap Assessment:</u> _____ - _____ = _____ Required Proficiency - Current Proficiency = Gap <u>Gap Mitigation Strategy:</u>							- Relationship building - Facilitation - Group dynamics - Groupware and collaboration tools - Communication - Critical thinking - Social networks		

Career Area: Knowledge Management**Job Role: Intellectual Capital Manager (ICM)**

3	Competency: KM Concept/Strategy		Proficiency:		Level:					Skill Topics:
			Current	Required	E	I	J	S	Ex	
Strategic Value: <i>To use Knowledge Management as strategy to improve productivity as a learning organization.</i>	Learning Objectives: Knowledge of and ability to understand the KM concept and how to insert it into the business strategy development in order to realize the benefits of KM.		0 1 2 3 4	0 1 2 3 4	X	X	X	X		- Intellectual Capital - Individual Human Capital, Social Capital and Enterprise Capital - Knowledge acquisition, production, transfer, brokering - Knowledge supply chain - KM process - KM tools - Impacts of KM on business
	Developmental Opportunities: Learning: - Certification in KM (government, DON, academic) (S, Ex) Work-based: - Attend KM conferences, such as IKM, Knowledge World, Enterprise Information Group (all)	Gap Assessment: <div style="display: flex; justify-content: space-between; width: 100%;"> _____ - _____ = _____ </div> <div style="display: flex; justify-content: space-between; width: 100%;"> Required Proficiency - Current Proficiency = Gap </div> Gap Mitigation Strategy:								

Career Area: Knowledge Management**Job Role: Intellectual Capital Manager (ICM)**

4	Competency: Information Resource Management	Proficiency:		Level:					Skill Topics:
		Current	Required	E	I	J	S	Ex	
<u>Strategic Value:</u> <i>To ensure organization information resources are a strategic asset that will provide the backbone of DON information needs by utilizing information resource assets in the most advantageous manner.</i>	<u>Learning Objectives:</u> Knowledge of and ability to manage information, information systems and related resources according to Federal laws and DoD, DON regulations.	0 1 2 3 4	0 1 2 3 4			X	X		- Information management - Information systems management - Resource management - Project, program, contract and life-cycle management - Information resource management regulations, policies and procedures - Computer products and services analysis - Cost-benefit/economic analysis - Life-cycle cost analysis
	<u>Developmental Opportunities:</u> Learning: - Certification in KM (government, DON, academic) (S, Ex) Work-based: - Attend KM conferences, such as IKM, Knowledge World, Enterprise Information Group (all)	<u>Gap Assessment:</u> _____ - _____ = _____ Required Proficiency - Current Proficiency = Gap <u>Gap Mitigation Strategy:</u>							

Career Area: Knowledge Management**Job Role: Intellectual Capital Manager (ICM)**

5	Competency: Enterprise Resource Planning	Proficiency:		Level:					Skill Topics:
<u>Strategic Value:</u> To enable organizations to unify disparate enterprise information systems (e.g., financial, human resources, supply chain management) into one comprehensive application.	<u>Learning Objectives:</u> Knowledge of and ability to enable communication between multiple enterprise applications and platforms.	Current	Required	E	I	J	S	Ex	- Visioning - Requirements analysis - Feasibility studies - Life-cycle cost estimates - Commercial vendor assessments - Finance strategies - ERP software evaluation and procurement - Plan and implementation of ERP software usage - IV&V - Outcome-based performance measurement
		0 1 2 3 4	0 1 2 3 4			X	X	X	
	<u>Developmental Opportunities:</u> Learning: - Certification in KM (government, DON, academic) (S, Ex) Work-based: - Attend KM conferences, such as IKM, Knowledge World, Enterprise Information Group (all)	<u>Gap Assessment:</u> _____ - _____ = _____ Required Proficiency - Current Proficiency = Gap <u>Gap Mitigation Strategy:</u>							

Career Area: Knowledge Management**Job Role: Intellectual Capital Manager (ICM)**

6	Competency: Systems Thinking		Proficiency:		Level:					Skill Topics:
			Current	Required	E	I	J	S	Ex	
Strategic Value: <i>To build a learning organization by developing the capacity for putting pieces together and seeing the whole.</i>	Learning Objectives: Knowledge of and ability to create structural explanations for why things happen, to apply system archetypes to business situations, and to plan and evaluate actions to improve performance.	0 1 2 3 4	0 1 2 3 4	X	X	X	X			- Scoping - Setting expectations - Data collection and generation - Making systemic sense of data - Building shared understanding & commitment - Identifying intervention - Follow through
	Developmental Opportunities: Learning: - Certification in KM (government, DON, academic) (S, Ex) - DON Systems Thinking Computer-based Training (all) Work-based: - Attend KM conferences, such as IKM, Knowledge World, Enterprise Information Group (all)	Gap Assessment: _____ - _____ = _____ Required Proficiency - Current Proficiency = Gap					Gap Mitigation Strategy: 			

Career Area: Knowledge Management**Job Role: Intellectual Capital Manager (ICM)**

7	Competency: Leading People		Proficiency:		Level:					Skill Topics:
			Current	Required	E	I	J	S	Ex	
Strategic Value: <i>To design and implement strategies that maximize employee potential and foster high ethical standards in meeting the organization's vision and goals.</i>	Learning Objectives: Knowledge of and ability to inspire and motivate others toward goal accomplishment; to empower people, promote quality through effective use of performance management systems, foster team spirit, trust and pride.	0 1 2 3 4 0 1 2 3 4					X	X		- Policy directives - Policy development - Strategic planning - Performance management - Quality management - Team building - Understanding of cultural diversity - Coaching/mentoring - Conflict resolution - Negotiation/labor union relationship
	Developmental Opportunities: Learning: - Certification in KM (government, DON, academic) (S, Ex) Work-based: - Attend KM conferences, such as IKM, Knowledge World, Enterprise Information Group (all)	Gap Assessment: _____ - _____ = _____ Required Proficiency - Current Proficiency = Gap Gap Mitigation Strategy:								

Career Area: Knowledge Management**Job Role: Intellectual Capital Manager (ICM)**

8	Competency: Business Acumen		Proficiency:		Level:					Skill Topics:											
			Current	Required	E	I	J	S	Ex												
<u>Strategic Value:</u> <i>To aid the organization with maximizing its human, financial, material and information resources in a manner that instills public trust and accomplishes the organization's mission.</i>			<u>Learning Objectives:</u> Knowledge of and ability to manage and plan the organization's resource needs and execute strategies to maximize these resources.		0	1	2	3	4	0	1	2	3	4							- Understanding organizational operations - Business processes - Financial management
<u>Developmental Opportunities:</u> Learning: - Certification in KM (government, DON, academic) (S, Ex) Work-based: - Attend KM conferences, such as IKM, Knowledge World, Enterprise Information Group (all)			<u>Gap Assessment:</u> _____ - _____ = _____ Required Proficiency - Current Proficiency = Gap <u>Gap Mitigation Strategy:</u>																		

Career Area: Knowledge Management**Job Role: Performance Measurement Engineer (PME)**

1	Competency: Social Network Analysis		Proficiency:		Level:					Skill Topics:
			Current	Required	E	I	J	S	Ex	
<u>Strategic Value:</u> <i>To ensure the value of social networks is realized in the KM system.</i>	<u>Learning Objectives:</u> Knowledge of and ability to analyze, map and alter social networks to be included in the design of KM systems to improve knowledge performance.		0 1 2 3 4	0 1 2 3 4	X	X	X	X		- Organizational dynamics - Interviewing - Human factors - Communication networks - Understanding of social interactions group - Social structure - Human behavior analysis - Socigrams - Organizational and cultural factors of knowledge - Knowledge sharing processes - Communities of practice
	<u>Developmental Opportunities:</u> Learning: - Certification in KM (government, DON, academic) (S, Ex) Work-based: - Attend KM conferences, such as IKM, Knowledge World, Enterprise Information Group (all)	<u>Gap Assessment:</u> <div style="text-align: center;"> _____ - _____ = _____ Required Proficiency - Current Proficiency = Gap </div> <u>Gap Mitigation Strategy:</u>								

Career Area: Knowledge Management**Job Role: Performance Measurement Engineer (PME)**

2	Competency: Performance Metrics		Proficiency:		Level:					Skill Topics:								
	Current	Required	E	I	J	S	Ex											
Strategic Value: <i>To identify qualitative and quantitative measures of effectiveness in support of DON IM/IT programs.</i>	Learning Objectives: Knowledge of and ability to apply the tools, methodologies, and procedures to measure or evaluate enterprise IM/IT performance.		0	1	2	3	4	0	1	2	3	4		X	X	X		- Activity-based costing - Earned value management - Outcomes-based performance management/Benefits realization - Balanced Scorecard concept - Malcomb Baldrige Performance Excellence Criteria - Productivity enhancement
	Developmental Opportunities: Learning: - Certification in KM (government, DON, academic) (S, Ex) Work-based: - Attend KM conferences, such as IKM, Knowledge World, Enterprise Information Group (all)		Gap Assessment: _____ - _____ = _____ Required Proficiency - Current Proficiency = Gap Gap Mitigation Strategy:															

Career Area: Knowledge Management**Job Role: Performance Measurement Engineer (PME)**

3 Competency: KM Concept/Strategy		Proficiency:		Level:					Skill Topics:
		Current	Required	E	I	J	S	Ex	
<u>Strategic Value:</u> <i>To use Knowledge Management as strategy to improve productivity as a learning organization.</i>	<u>Learning Objectives:</u> Knowledge of and ability to understand the KM concept and how to insert it into the business strategy development in order to realize the benefits of KM.	0 1 2 3 4	0 1 2 3 4	X	X	X	X		- Intellectual Capital - Individual Human Capital, Social Capital and Enterprise Capital - Knowledge acquisition, production, transfer, brokering - Knowledge supply chain - KM process - KM tools - Impacts of KM on business
	<u>Developmental Opportunities:</u> Learning: - Certification in KM (government, DON, academic) (S, Ex) Work-based: - Attend KM conferences, such as IKM, Knowledge World, Enterprise Information Group (all)	<u>Gap Assessment:</u> <div style="text-align: center;"> _____ - _____ = _____ Required Proficiency - Current Proficiency = Gap </div>							
		<u>Gap Mitigation Strategy:</u>							

Career Area: Knowledge Management**Job Role: Performance Measurement Engineer (PME)**

4	Competency: Policy/Strategic Plan Development and Implementation	Proficiency:		Level:					Skill Topics:
<u>Strategic Value:</u> To develop and assist in the implementation of departmental policy and strategic plans regarding DON, DoD and Federal Government legislative mandates (i.e., Congressional Directives, Executive Orders, and policies relating to information systems communications).	<u>Learning Objectives:</u> Knowledge of and ability to apply information technology concepts, principles, practices, procedures, policies, standards and operational requirements both internal and external to the DON (e.g., at the Joint Staff level) necessary to develop or modify IT strategic plans and/or policy.	Current	Required	E	I	J	S	Ex	- Commercial, Federal and Military standards - Operational procedures - Operational doctrine - C4I issues - Policy directives - Policy development - Interoperability deficiencies - Migration/integration initiatives - DoD security - Strategic Planning
		0 1 2 3 4	0 1 2 3 4			X	X		
	<u>Developmental Opportunities:</u> Learning: - Certification in KM (government, DON, academic) (S, Ex) Work-based: - Attend KM conferences, such as IKM, Knowledge World, Enterprise Information Group (all)	<u>Gap Assessment:</u> _____ - _____ = _____ Required Proficiency - Current Proficiency = Gap <u>Gap Mitigation Strategy:</u>							

Career Area: Knowledge Management**Job Role: Performance Measurement Engineer (PME)**

5	Competency: KM Cultural Transformation		Proficiency:		Level:					Skill Topics:
			Current	Required	E	I	J	S	Ex	
Strategic Value: <i>To promote cultural transformation to accept knowledge sharing as power.</i>	Learning Objectives: Knowledge of and ability to facilitate cultural changes from "knowledge is power" to "knowledge sharing is power" using various tools and techniques.	0 1 2 3 4	0 1 2 3 4				X	X		- Facilitation - Team building - Sociology of knowledge - Collaboration tools - Group dynamics - Incentives and rewards - Concept of organizational learning - Training and awareness
	Developmental Opportunities: Learning: - Certification in KM (government, DON, academic) (S, Ex) Work-based: - Attend KM conferences, such as IKM, Knowledge World, Enterprise Information Group (all)	Gap Assessment: _____ - _____ = _____ Required Proficiency - Current Proficiency = Gap Gap Mitigation Strategy:								

Career Area: Knowledge Management**Job Role: Performance Measurement Engineer (PME)**

6	Competency: Information Resource Management	Proficiency:		Level:					Skill Topics:
		Current	Required	E	I	J	S	Ex	
<u>Strategic Value:</u> <i>To ensure organization information resources are a strategic asset that will provide the backbone of DON information needs by utilizing information resource assets in the most advantageous manner.</i>	<u>Learning Objectives:</u> Knowledge of and ability to manage information, information systems and related resources according to Federal laws and DoD, DON regulations.	0 1 2 3 4	0 1 2 3 4			X	X		- Information management - Information systems management - Resource management - Project, program, contract and life-cycle management - Information resource management regulations, policies and procedures - Computer products and services analysis - Cost-benefit/economic analysis - Life-cycle cost analysis
	<u>Developmental Opportunities:</u> Learning: - Certification in KM (government, DON, academic) (S, Ex) Work-based: - Attend KM conferences, such as IKM, Knowledge World, Enterprise Information Group (all)	<u>Gap Assessment:</u> _____ - _____ = _____ Required Proficiency - Current Proficiency = Gap <u>Gap Mitigation Strategy:</u>							

Career Area: Knowledge Management**Job Role: Performance Measurement Engineer (PME)**

7	Competency: Enterprise Resource Planning		Proficiency:		Level:					Skill Topics:
	Current	Required	E	I	J	S	Ex			
<p><u>Strategic Value:</u></p> <p>To enable organizations to unify disparate enterprise information systems (e.g., financial, human resources, supply chain management) into one comprehensive application.</p>	0 1 2 3 4	0 1 2 3 4				X	X			
<p><u>Learning Objectives:</u></p> <p>Knowledge of and ability to enable communication between multiple enterprise applications and platforms.</p>										
<p><u>Developmental Opportunities:</u></p> <p>Learning:</p> <ul style="list-style-type: none"> - Certification in KM (government, DON, academic) (S, Ex) <p>Work-based:</p> <ul style="list-style-type: none"> - Attend KM conferences, such as IKM, Knowledge World, Enterprise Information Group (all) 	<p><u>Gap Assessment:</u></p> <p>_____ - _____ = _____</p> <p>Required Proficiency - Current Proficiency = Gap</p> <p><u>Gap Mitigation Strategy:</u></p>									

- Visioning
- Requirements analysis
- Feasibility studies
- Life-cycle cost estimates
- Commercial vendor assessments
- Finance strategies
- ERP software evaluation and procurement
- Plan and implementation of ERP software usage
- IV&V
- Outcome-based performance measurement

Career Area: Knowledge Management**Job Role: Performance Measurement Engineer (PME)**

8	Competency: Business Process Reengineering		Proficiency:		Level:					Skill Topics:											
			Current	Required	E	I	J	S	Ex												
<u>Strategic Value:</u> <i>To ensure the organization's methods and processes support enterprise IM/IT requirements, both cost and technical.</i>			<u>Learning Objectives:</u> Knowledge of and ability to apply analytical methods and procedures to review and assess IM/IT processes and procedures to support the development and enhancement of administrative processes, procedures and organizations.		0	1	2	3	4	0	1	2	3	4							- Economic analysis principles - Activity-based costing - DoD and DON budget and procurement processes - BPR methodologies, metrics, tools and techniques - Automated information systems for specific computer projects - Plan and budgetary document development to support requirements
<u>Developmental Opportunities:</u> Learning: - Certification in KM (government, DON, academic) (S, Ex) - DoD BPR Certificate Program (all) - Information Resources Management College, Reengineering Organizational Processes (all) Work-based: - Attend KM conferences, such as IKM, Knowledge World, Enterprise Information Group (all)			<u>Gap Assessment:</u> _____ - _____ = _____ Required Proficiency - Current Proficiency = Gap <u>Gap Mitigation Strategy:</u>																		

Career Area: Knowledge Management**Job Role: Performance Measurement Engineer (PME)**

9 Competency: Systems Thinking		Proficiency:		Level:					Skill Topics:
		Current	Required	E	I	J	S	Ex	
<u>Strategic Value:</u> <i>To build a learning organization by developing the capacity for putting pieces together and seeing the whole.</i>	<u>Learning Objectives:</u> Knowledge of and ability to create structural explanations for why things happen, to apply system archetypes to business situations, and to plan and evaluate actions to improve performance.	0 1 2 3 4	0 1 2 3 4	X	X	X	X		- Scoping - Setting expectations - Data collection and generation - Making systemic sense of data - Building shared understanding & commitment - Identifying intervention - Follow through
	<u>Developmental Opportunities:</u> Learning: - Certification in KM (government, DON, academic) (S, Ex) - DON Systems Thinking Computer-based Training (all) Work-based: - Attend KM conferences, such as IKM, Knowledge World, Enterprise Information Group (all)	<u>Gap Assessment:</u> _____ - _____ = _____ Required Proficiency - Current Proficiency = Gap <u>Gap Mitigation Strategy:</u>							

Career Area: Knowledge Management**Job Role: Performance Measurement Engineer (PME)**

10	Competency: Cognitive and Decision Science	Proficiency:		Level:					Skill Topics:
<u>Strategic Value:</u> To promote organizational learning and innovation.	<u>Learning Objectives:</u> Knowledge of and ability to understand basis of human decision making and thinking, and to develop processes for knowledge collection, organization, sharing and dissemination.	Current	Required	E	I	J	S	Ex	<ul style="list-style-type: none">- Group psychology- Database design- Decision theory- Systems engineering- Human factors- Object Oriented Programming- Artificial intelligence- Decision aids
		0 1 2 3 4	0 1 2 3 4		X	X	X		
	<u>Developmental Opportunities:</u> Learning: - Certification in KM (government, DON, academic) (S, Ex) Work-based: - Attend KM conferences, such as IKM, Knowledge World, Enterprise Information Group (all)	<u>Gap Assessment:</u> _____ - _____ = _____ Required Proficiency - Current Proficiency = Gap <u>Gap Mitigation Strategy:</u>							

Career Area: Knowledge Management**Job Role: Performance Measurement Engineer (PME)**

11	Competency: Business Acumen		Proficiency:		Level:					Skill Topics:											
			Current	Required	E	I	J	S	Ex												
<u>Strategic Value:</u> <i>To aid the organization with maximizing its human, financial, material and information resources in a manner that instills public trust and accomplishes the organization's mission.</i>			<u>Learning Objectives:</u> Knowledge of and ability to manage and plan the organization's resource needs and execute strategies to maximize these resources.		0	1	2	3	4	0	1	2	3	4				X	X	X	- Understanding organizational operations - Business processes - Financial management
<u>Developmental Opportunities:</u> Learning: - Certification in KM (government, DON, academic) (S, Ex) Work-based: - Attend KM conferences, such as IKM, Knowledge World, Enterprise Information Group (all)			<u>Gap Assessment:</u> _____ - _____ = _____ Required Proficiency - Current Proficiency = Gap <u>Gap Mitigation Strategy:</u>																		

Career Area: Knowledge Management**Job Role: Knowledge Assurance Manager (KAM)**

1	Competency: Systems Integration		Proficiency:		Level:					Skill Topics:
			Current	Required	E	I	J	S	Ex	
Strategic Value: <i>To manage the integration of subsystems into a system.</i>	Learning Objectives: Knowledge of and ability to integrate large information systems.	0 1 2 3 4 0 1 2 3 4						X	X	- Integration methods, tools and metrics - System interoperability - Software portability - Software scalability - System security - System testing - DoD and DON Enterprise migration strategies - Specifications and uses of embedded computers
	Developmental Opportunities: Learning: - Certification in KM (government, DON, academic) (S, Ex) Work-based: - Attend KM conferences, such as IKM, Knowledge World, Enterprise Information Group (all)	Gap Assessment: _____ - _____ = _____ Required Proficiency - Current Proficiency = Gap Gap Mitigation Strategy:								

Career Area: Knowledge Management**Job Role: Knowledge Assurance Manager (KAM)**

2	Competency: Information Systems/Network Security	Proficiency:		Level:					Skill Topics:
<u>Strategic Value:</u> To protect and restore the security of information systems and network services and capabilities; identify and eliminate information systems vulnerabilities to inadvertent disclosure, modification, destruction, or denial of service.	<u>Learning Objectives:</u> Knowledge of and ability to develop, evaluate, coordinate and disseminate security tools and procedures.	Current	Required	E	I	J	S	Ex	<ul style="list-style-type: none">- Information systems- Information systems modeling methods- Capacity planning- Migration strategy development- Customer information system planning, design and modification assistance- Change management and control processes- Development and maintenance tools- Release package planning and status accounting- Documentation audits and reviews- Asset management tools- Configuration management history- Human factors practices and guidelines- Network security issues- Network performance monitoring- Cryptography
		0 1 2 3 4	0 1 2 3 4	X	X	X			
	<u>Developmental Opportunities:</u> Learning: - NETg Technical Training Courses Work-based: - Serve as an Information System Security Officer (ISSO) or assist the ISSO (J) - Analyze security software, hardware support tools (I) - Conduct or assist in system risk assessments (I, J) - Conduct system vulnerability tests (J) - Partnering with Industry (all)	<u>Gap Assessment:</u> _____ - _____ = _____ Required Proficiency - Current Proficiency = Gap <u>Gap Mitigation Strategy:</u>							

Career Area: Knowledge Management**Job Role: Knowledge Assurance Manager (KAM)**

3 Competency: Architecture		Proficiency:		Level:					Skill Topics:
		Current	Required	E	I	J	S	Ex	
<u>Strategic Value:</u> <i>To provide secure information systems that are efficient, effective, interoperable, scalable, reliable, integrated and affordable.</i>	<u>Learning Objectives:</u> Understanding the operational, systems and technical views of the architecture framework endorsed by DoD, and their application in computer and information systems components.	0 1 2 3 4	0 1 2 3 4		X	X	X		- OMB Memo M-97-16 - C4ISR architecture framework - Process modeling - Data interchange services - Computer systems architecture - System design, including hardware components and configuration - Database management - Distributed processing - Operating Systems - Networks - Systems software - Technical Standards--their role and specific standards in use and adopted by DoD and DON - Cryptographic equipment and systems - DoD Security Architecture (MSL)
	<u>Developmental Opportunities:</u> Learning: - Information Resources Management College, Managing Information Architectures and Infrastructures (all) - Certification in KM (government, DON, academic) (S, Ex) Work-based: - Attend KM conferences, such as IKM, Knowledge World, Enterprise Information Group (all)	<u>Gap Assessment:</u> <div style="text-align: center;"> _____ - _____ = _____ Required Proficiency - Current Proficiency = Gap </div> <u>Gap Mitigation Strategy:</u>							

Career Area: Knowledge Management**Job Role: Knowledge Assurance Manager (KAM)**

4	Competency: Web Development for KM	Proficiency:					Level:					Skill Topics:					
<u>Strategic Value:</u> To ensure that Internet/Intranet websites and portals meet requirements, are maintainable, on schedule and within cost.	<u>Learning Objectives:</u> Knowledge of and ability to apply emerging web design methodologies and technologies for developing KM products and systems.	Current					Required					E	I	J	S	Ex	<ul style="list-style-type: none">- DoD policies and guidelines for web development- Website design and structure- Management of internal and external websites- Monitoring website functionality and security- Collection and analysis of website statistics- Testing, troubleshooting and resolving web problems- Evaluating web applications- Network architecture and software- Object oriented technology
		0	1	2	3	4	0	1	2	3	4	X	X	X	X		
	<u>Developmental Opportunities:</u> Learning: - Certification in KM (government, DON, academic) (S, Ex) Work-based: - Attend KM conferences, such as IKM, Knowledge World, Enterprise Information Group (all)	<u>Gap Assessment:</u> _____ - _____ = _____ Required Proficiency - Current Proficiency = Gap <u>Gap Mitigation Strategy:</u>															

Career Area: Knowledge Management**Job Role: Knowledge Assurance Manager (KAM)**

5	Competency: E-Business		Proficiency:		Level:					Skill Topics:
			Current	Required	E	I	J	S	Ex	
Strategic Value: <i>To conduct business in an integrated and automated paperless information environment.</i>	Learning Objectives: Knowledge of and ability to develop and apply electronic commerce tools and electronic data interchange policy, practices, standards, and procedures.	0 1 2 3 4 0 1 2 3 4				X	X	X		- Electronic mail - Electronic bulletin board systems - Electronic funds transfer - Business Process Evaluation/Reengineering - Economic/Cost benefit analysis - Project planning/development - Enterprise integration/implementation - EC/EDI Standards coordination/development support - Training and awareness
	Developmental Opportunities: Learning: - Certification in KM (government, DON, academic) (S, Ex) Work-based: - Attend KM conferences, such as IKM, Knowledge World, Enterprise Information Group (all)	Gap Assessment: _____ - _____ = _____ Required Proficiency - Current Proficiency = Gap Gap Mitigation Strategy:								

Career Area: Knowledge Management**Job Role: Knowledge Assurance Manager (KAM)**

6	Competency: Knowledge Mapping	Proficiency:		Level:					Skill Topics:
		Current	Required	E	I	J	S	Ex	
<u>Strategic Value:</u> <i>To structure and manage an organization's knowledge directly and serve as visual directories to other more detailed sources of client knowledge.</i>	<u>Learning Objectives:</u> Knowledge of and ability to provide the organization with a picture of the specific knowledge it requires in order to support its business processes.	0 1 2 3 4	0 1 2 3 4		X	X	X		- Intellectual Capital - Individual Human Capital, Social Capital and Enterprise Capital - Knowledge acquisition, production, transfer, brokering - Information Management
	<u>Developmental Opportunities:</u> Learning: - Certification in KM (government, DON, academic) (S, Ex) Work-based: - Attend KM conferences, such as IKM, Knowledge World, Enterprise Information Group (all)	<u>Gap Assessment:</u> <div style="text-align: center;"> _____ - _____ = _____ Required Proficiency - Current Proficiency = Gap </div> <u>Gap Mitigation Strategy:</u>							

Career Area: Knowledge Management**Job Role: Knowledge Assurance Manager (KAM)**

7	Competency: Social Network Analysis	Proficiency:		Level:					Skill Topics:
<u>Strategic Value:</u> To ensure the value of social networks is realized in the KM system.	<u>Learning Objectives:</u> Knowledge of and ability to analyze, map and alter social networks to be included in the design of KM systems to improve knowledge performance.	Current	Required	E	I	J	S	Ex	<ul style="list-style-type: none">- Organizational dynamics- Interviewing- Human factors- Communication networks- Understanding of social interactions group- Social structure- Human behavior analysis- Socigrams- Organizational and cultural factors of knowledge- Knowledge sharing processes- Communities of practice
		0 1 2 3 4	0 1 2 3 4	X	X	X	X		
	<u>Developmental Opportunities:</u> Learning: - Certification in KM (government, DON, academic) (S, Ex) Work-based: - Attend KM conferences, such as IKM, Knowledge World, Enterprise Information Group (all)	<u>Gap Assessment:</u> _____ - _____ = _____ Required Proficiency - Current Proficiency = Gap <u>Gap Mitigation Strategy:</u>							

Career Area: Knowledge Management**Job Role: Knowledge Assurance Manager (KAM)**

8	Competency: Performance Metrics		Proficiency:		Level:					Skill Topics:
	Current	Required	E	I	J	S	Ex			
<u>Strategic Value:</u> <i>To identify qualitative and quantitative measures of effectiveness in support of DON IM/IT programs.</i>	<u>Learning Objectives:</u> Knowledge of and ability to apply the tools, methodologies, and procedures to measure or evaluate enterprise IM/IT performance.		0 1 2 3 4	0 1 2 3 4		X	X	X	- Activity-based costing - Earned value management - Outcomes-based performance management/Benefits realization - Balanced Scorecard concept - Malcomb Baldrige Performance Excellence Criteria - Productivity enhancement	
	<u>Developmental Opportunities:</u> Learning: - Certification in KM (government, DON, academic) (S, Ex) Work-based: - Attend KM conferences, such as IKM, Knowledge World, Enterprise Information Group (all)		<u>Gap Assessment:</u> _____ - _____ = _____ Required Proficiency - Current Proficiency = Gap <u>Gap Mitigation Strategy:</u>							

Career Area: Knowledge Management**Job Role: Knowledge Assurance Manager (KAM)**

9	Competency: KM Concept/Strategy		Proficiency:		Level:					Skill Topics:										
			Current	Required	E	I	J	S	Ex											
<u>Strategic Value:</u> <i>To use Knowledge Management as strategy to improve productivity as a learning organization.</i>			<u>Learning Objectives:</u> Knowledge of and ability to understand the KM concept and how to insert it into the business strategy development in order to realize the benefits of KM.		0	1	2	3	4	0	1	2	3	4	X	X	X	X		- Intellectual Capital - Individual Human Capital, Social Capital and Enterprise Capital - Knowledge acquisition, production, transfer, brokering - Knowledge supply chain - KM process - KM tools - Impacts of KM on business
<u>Developmental Opportunities:</u> Learning: - Certification in KM (government, DON, academic) (S, Ex) Work-based: - Attend KM conferences, such as IKM, Knowledge World, Enterprise Information Group (all)			<u>Gap Assessment:</u> _____ - _____ = _____ Required Proficiency - Current Proficiency = Gap <u>Gap Mitigation Strategy:</u>																	

Career Area: Knowledge Management**Job Role: Knowledge Assurance Manager (KAM)**

10	Competency: KM Cultural Transformation		Proficiency:		Level:					Skill Topics:	
			Current	Required	E	I	J	S	Ex		
<u>Strategic Value:</u> To promote cultural transformation to accept knowledge sharing as power.			<u>Learning Objectives:</u> Knowledge of and ability to facilitate cultural changes from "knowledge is power" to "knowledge sharing is power" using various tools and techniques.		0 1 2 3 4	0 1 2 3 4			X	X	- Facilitation - Team building - Sociology of knowledge - Collaboration tools - Group dynamics - Incentives and rewards - Concept of organizational learning - Training and awareness
<u>Developmental Opportunities:</u> Learning: - Certification in KM (government, DON, academic) (S, Ex) Work-based: - Attend KM conferences, such as IKM, Knowledge World, Enterprise Information Group (all)			<u>Gap Assessment:</u> _____ - _____ = _____ Required Proficiency - Current Proficiency = Gap <u>Gap Mitigation Strategy:</u>								

Career Area: Knowledge Management**Job Role: Knowledge Assurance Manager (KAM)**

11	Competency: KM Ethical and Legal Issues	Proficiency:					Level:					Skill Topics:					
<u>Strategic Value:</u> To conduct business in compliance with law and DON ethics.	<u>Learning Objectives:</u> Knowledge of and ability to take actions in compliance with laws and regulations that are relevant to KM efforts and to consider ethical issues whenever appropriate.	Current					Required					E	I	J	S	Ex	- Relevant laws and regulations - Privacy Issues - Security Issues - Ethics in teamwork
		0	1	2	3	4	0	1	2	3	4	X	X	X	X		
	<u>Developmental Opportunities:</u> Learning: - Certification in KM (government, DON, academic) (S, Ex) Work-based: - Attend KM conferences, such as IKM, Knowledge World, Enterprise Information Group (all)	<u>Gap Assessment:</u> _____ - _____ = _____ Required Proficiency - Current Proficiency = Gap <u>Gap Mitigation Strategy:</u>															

Career Area: Knowledge Management**Job Role: Knowledge Assurance Manager (KAM)**

12	Competency: Systems Thinking	Proficiency:					Level:					Skill Topics:					
<u>Strategic Value:</u> To build a learning organization by developing the capacity for putting pieces together and seeing the whole.	<u>Learning Objectives:</u> Knowledge of and ability to create structural explanations for why things happen, to apply system archetypes to business situations, and to plan and evaluate actions to improve performance.	Current					Required					E	I	J	S	Ex	- Scoping - Setting expectations - Data collection and generation - Making systemic sense of data - Building shared understanding & commitment - Identifying intervention - Follow through
		0	1	2	3	4	0	1	2	3	4	X	X	X	X		
	<u>Developmental Opportunities:</u> Learning: - Certification in KM (government, DON, academic) (S, Ex) - DON Systems Thinking Computer-based Training (all) Work-based: - Attend KM conferences, such as IKM, Knowledge World, Enterprise Information Group (all)	<u>Gap Assessment:</u> _____ - _____ = _____ Required Proficiency - Current Proficiency = Gap <u>Gap Mitigation Strategy:</u>															

Career Area: Knowledge Management**Job Role: Knowledge Assistant (KA)**

1	Competency: Web Development for KM		Proficiency:		Level:					Skill Topics:
			Current	Required	E	I	J	S	Ex	
<u>Strategic Value:</u> <i>To ensure that Internet/Intranet websites and portals meet requirements, are maintainable, on schedule and within cost.</i>	<u>Learning Objectives:</u> Knowledge of and ability to apply emerging web design methodologies and technologies for developing KM products and systems.	0 1 2 3 4	0 1 2 3 4	X	X					- DoD policies and guidelines for web development - Website design and structure - Management of internal and external websites - Monitoring website functionality and security - Collection and analysis of website statistics - Testing, troubleshooting and resolving web problems - Evaluating web applications - Network architecture and software - Object oriented technology
	<u>Developmental Opportunities:</u> Work-based: - Attend KM conferences, such as IKM, Knowledge World, Enterprise Information Group (all)	<u>Gap Assessment:</u> <div style="text-align: center;"> _____ - _____ = _____ Required Proficiency - Current Proficiency = Gap </div> <u>Gap Mitigation Strategy:</u>								

Career Area: Knowledge Management**Job Role: Knowledge Assistant (KA)**

2	Competency: KM Concept/Strategy		Proficiency:		Level:					Skill Topics:
			Current	Required	E	I	J	S	Ex	
Strategic Value: <i>To use Knowledge Management as strategy to improve productivity as a learning organization.</i>	Learning Objectives: Knowledge of and ability to understand the KM concept and how to insert it into the business strategy development in order to realize the benefits of KM.	0 1 2 3 4	0 1 2 3 4	X	X					- Intellectual Capital - Individual Human Capital, Social Capital and Enterprise Capital - Knowledge acquisition, production, transfer, brokering - Knowledge supply chain - KM process - KM tools - Impacts of KM on business
	Developmental Opportunities: Work-based: - Attend KM conferences, such as IKM, Knowledge World, Enterprise Information Group (all)	Gap Assessment: <div style="display: flex; justify-content: space-between; align-items: center;"> <div>_____</div> <div>-</div> <div>_____</div> <div>=</div> <div>_____</div> </div> <div style="display: flex; justify-content: space-between; align-items: center; margin-top: 10px;"> <div>Required Proficiency</div> <div>-</div> <div>Current Proficiency</div> <div>=</div> <div>Gap</div> </div> Gap Mitigation Strategy:								

Career Area: Knowledge Management**Job Role: Knowledge Assistant (KA)**

3	Competency: Systems Thinking		Proficiency:		Level:					Skill Topics:
			Current	Required	E	I	J	S	Ex	
Strategic Value: <i>To build a learning organization by developing the capacity for putting pieces together and seeing the whole.</i>	Learning Objectives: Knowledge of and ability to create structural explanations for why things happen, to apply system archetypes to business situations, and to plan and evaluate actions to improve performance.	0 1 2 3 4	0 1 2 3 4	X	X					- Scoping - Setting expectations - Data collection and generation - Making systemic sense of data - Building shared understanding & commitment - Identifying intervention - Follow through
	Developmental Opportunities: Learning: - DON Systems Thinking Computer-based Training (all) Work-based: - Attend KM conferences, such as IKM, Knowledge World, Enterprise Information Group (all)	Gap Assessment: <div style="display: flex; justify-content: space-between; width: 100%;"> <div>_____</div> <div>-</div> <div>_____</div> <div>=</div> <div>_____</div> </div> <div style="display: flex; justify-content: space-between; width: 100%;"> <div>Required Proficiency</div> <div>-</div> <div>Current Proficiency</div> <div>=</div> <div>Gap</div> </div> Gap Mitigation Strategy:								

Career Area: Knowledge Management**Job Role: Knowledge Assistant (KA)**

4	<u>Competency:</u> Content Integration		<u>Proficiency:</u>		<u>Level:</u>					<u>Skill Topics:</u>
			Current	Required	E	I	J	S	Ex	
<u>Strategic Value:</u> To provide the organization a consolidated library of knowledge available to transport across different media.	<u>Learning Objectives:</u> Knowledge of and ability to synthesize organizational knowledge in a manner that allows for organization-wide access.	0 1 2 3 4	0 1 2 3 4	X	X					- Information management - Resource management - Computer products and services analysis
	<u>Developmental Opportunities:</u> Work-based: - Attend KM conferences, such as IKM, Knowledge World, Enterprise Information Group (all)	<u>Gap Assessment:</u> _____ - _____ = _____ Required Proficiency - Current Proficiency = Gap <u>Gap Mitigation Strategy:</u>								

Computer and Information Systems Engineering Career Area

Job Roles

The job roles in the Computer and Information Systems Engineering Career Area include the following competencies:

❖ ***Architecture & Standards***

Definition: promotes the development, adoption, specification, certification, and application of information technology architecture and standards.

1. Architecture
2. Standards
3. Human Computer Interface
4. Configuration Management
5. Requirements Analysis
6. Integration and Interoperability Engineering
7. Common Operating Environment
8. Systems Integration
9. Developmental Test and Evaluation
10. Program Management
11. Contracting Officer's Representative
12. Information Assurance

❖ ***Data Management***

Definition: develops, organizes, and maintains a data architecture.

1. Data Maintenance
2. Electronic Data Interchange
3. Standards
4. Configuration Management
5. Quality Assurance
6. Requirements Analysis
7. Common Operating Environment
8. Computer Systems Architecture
9. Information Assurance
10. Modeling and Simulation
11. Program Management
12. Contracting Officer's Representative

❖ ***Project Management***

Definition: within the Computer and Information Systems Engineering area, supports the acquisition of required hardware, software, support systems, and other materials while ensuring the adherence to Federal Law and DoD and DON life cycle management regulations; provides guidance for system oversight, reviews, and milestone approval for DON-managed information system programs; manages contracts and related supplier management functions; performs Contracting Officer's Representative (COR) functions.

1. Systems Development
2. Systems Acquisition
3. Information Technology, Information Management, Knowledge Management
4. Business Development
5. Quality Assurance
6. Configuration Management
7. Risk Management
8. Architecture
9. Business Process Reengineering
10. E-Business
11. Life Cycle Management
12. Requirements Analysis
13. Requirements Management
14. Program Management
15. Contracting Officer's Representative
16. Information Assurance

❖ **Research & Development**

Definition: conducts basic scientific research and applies research to advanced technologies and prototypes for computer and communications systems.

1. Basic Scientific Research
2. Applied Research
3. Advanced Concept Technology Demonstrations
4. Requirements Analysis
5. Modeling and Simulation
6. Program Management
7. Contracting Officer's Representative
8. Information Assurance

❖ **Software Engineering**

Definition: develops, tests, operates, implements, and maintains DON software systems, as well as selects commercial off-the-shelf software; also oversees these functions.

1. Software Development
2. Software Reuse
3. Computer Aided Software Engineering
4. Human Computer Interface
5. Common Operating Environment
6. Computer Systems Architecture
7. Requirements Management
8. Configuration Management
9. Systems Integration
10. Standards
11. Testing
12. Life Cycle Management
13. Program Management
14. Contracting Officer's Representative
15. Information Assurance

❖ System Analysis

Definition: identifies, collects and analyzes customer/user requirements; distributes and allocates these requirements to system and subsystem levels.

1. Requirements Analysis
2. Modeling and Simulation
3. Architecture
4. Human Computer Interface
5. Operations Research
6. Configuration Management
7. Computer Aided Software Engineering
8. Business Process Reengineering
9. Program Management
10. Contracting Officer's Representative
11. Information Assurance

❖ Systems Engineering

Definition: integrates information system components including hardware, software, data, policy, procedures and users to produce a working system; integrates information systems with the external environment while focusing on reusability, interoperability, standards, security, and other factors.

1. Requirements Analysis
2. Computer Systems Architecture
3. Systems Integration
4. Software Development
5. Software Reuse
6. Computer Aided Software Engineering
7. Human Computer Interface
8. Common Operating Environment
9. Network Engineering
10. Integrated Network Management
11. Operational Test and Evaluation
12. Integrated Verification and Validation
13. Reliability
14. Configuration Management
15. Operations Research
16. Program Management
17. Contracting Officer's Representative
18. Information Assurance

❖ Test & Evaluation

Definition: conducts all aspects of testing for a system's life cycle, including developmental, operational, and integration testing and evaluation; individuals pursuing this discipline should have working knowledge of the testing and evaluation tools and techniques used to evaluate software and information systems.

1. Developmental Test and Evaluation
2. Integrated Verification and Validation
3. Integration Testing

4. Operational Test and Evaluation
5. Quality Assurance
6. Testing
7. Reliability
8. Computer Aided Software Engineering
9. Program Management
10. Contracting Officer's Representative
11. Information Assurance

❖ **Systems Administration**

Definition: uses tools and methods to operate, test, maintain and manage computer systems and networks which store, transfer, and manipulate data; integrates mainframe, mid-tier, personal computers, associated networks, and systems software components to provide data processing support, products, and services to customers. *This job role is not considered inherently governmental.*

1. Computer Operations Management
2. Network Management
3. Computer Systems Architecture
4. Operational Test and Evaluation
5. Business Development
6. Information Assurance

Competencies by Job Role

The following table illustrates the breakout of competencies (along the left hand side) by job role (across the top) within this career area:

Competency:	Architecture and Standards	Data Management	Project Management	Research and Development	Software Engineering	Systems Administration	Systems Analysis	Systems Engineering	Test and Evaluation
Advanced Concept Technology Demonstration				•					
Applied Research				•					
Architecture	•		•				•		
Basic Scientific Research				•					
Business Development			•			•			
Business Process Reengineering			•				•		
Common Operating Environment	•	•			•			•	
Computer Aided Software Engineering (CASE)					•		•	•	•
Computer Operations Management						•			
Computer Systems Architecture		•			•	•		•	
Configuration Management	•	•	•		•		•	•	
Contracting Officers Representative (COR)	•	•	•	•	•		•	•	•
Data Maintenance		•							
Developmental Test & Evaluation (DT&E)	•								•
E-Business		•	•						
Human Computer Interface	•				•		•	•	
Information Assurance	•	•	•	•	•	•	•	•	•
Information Technology, Information Management, Knowledge Management			•						
Integrated Network Management								•	
Integrated Verification & Validation (IV&V)								•	•
Integration & Interoperability Engineering	•								
Integration Testing									•
Life Cycle Management			•		•				
Modeling and Simulation		•		•			•		
Network Engineering								•	
Network Management						•			
Operational Test & Evaluation (OT&E)						•		•	•
Operations Research							•	•	
Program Management	•	•	•	•	•		•	•	•
Quality Assurance			•						•
Reliability								•	•

Competency:	Architecture and Standards	Data Management	Project Management	Research and Development	Software Engineering	Systems Administration	Systems Analysis	Systems Engineering	Test and Evaluation
Requirements Analysis	●	●	●	●			●	●	
Requirements Management			●		●				
Risk Management			●						
Software Development					●			●	
Software Reuse					●			●	
Standards	●	●	●		●				
System Integration	●				●			●	
Systems Acquisition			●						
Systems Development			●						
Testing					●				●

Job Roles by Occupational Series

The following table presents a matrix of the occupational series (on the left side) by the job roles in this career area (across the top). It is offered as general guidance to help identify where the work performed in the various job roles may be found in the federal government workforce. As such, it does not depict every situation that could occur. More detailed information on the draft classification standard for the Information Technology specialist (GS-2200) can be found in Appendix B of Volume I.

	Architecture & Standards	Data Management	Project Management	Research & Development	Software Engineering	Systems Analysis	Systems Engineering	Test & Evaluation	* Systems Administration
GS-301 Misc. Admin. and Program		•							
GS-303 Misc. Clerk and Assistant		•							
GS-335 Computer Clerk & Assistant		•							•
GS-340 Program Management	•		•			•			
GS-343 Management & Program Analysis	•		•			•			
GS-391 Telecommunications	•		•	•			•		•
GS-854 Computer Engineer	•		•	•	•		•		
GS-855 Electronics Engineer	•				•		•		
GS-856 Electronics Technician					•				
GS-1550 Computer Science	•			•	•	•	•		
GS-2210¹ IT Management	•	•	•	•	•	•	•	•	•

¹ Formerly GS-334 Computer Specialist.

Career Area: Computer and Information Systems Engineering**Job Role: Architecture and Standards**

1	Competency: Architecture		Proficiency:		Level:					Skill Topics:
<u>Strategic Value:</u> To provide secure information systems that are efficient, effective, interoperable, scalable, reliable, integrated and affordable.	<u>Learning Objectives:</u> Understanding the operational, systems and technical views of the architecture framework endorsed by DoD, and their application in computer and information systems components.	Current	Required	E	I	J	S	Ex	<ul style="list-style-type: none">- OMB Memo M-97-16- C4ISR architecture framework- Process modeling- Data interchange services- Computer systems architecture- System design, including hardware components and configuration- Database management- Distributed processing- Operating Systems- Networks- Systems software- Technical Standards--their role and specific standards in use and adopted by DoD and DON- Cryptographic equipment and systems- DoD Security Architecture (MSL)	
		0 1 2 3 4	0 1 2 3 4	X	X	X	X			
	<u>Developmental Opportunities:</u> Learning: <ul style="list-style-type: none">- Information Resources Management College, Managing Information Architectures and Infrastructures (all)- Information Resources Management College, Critical Information System Technologies (E, I, J)	<u>Gap Assessment:</u> _____ - _____ = _____ Required Proficiency - Current Proficiency = Gap <u>Gap Mitigation Strategy:</u>								

Career Area: Computer and Information Systems Engineering**Job Role: Architecture and Standards**

2	Competency: Standards		Proficiency:		Level:					Skill Topics:		
	<u>Strategic Value:</u> To promote interoperability, security, portability and scalability by ensuring requirements are inserted into standards development efforts, developing standards profiles and promoting the development of standards compliant products.	<u>Learning Objectives:</u> Knowledge of and ability to develop and maintain standards and to influence standards development and standards development bodies.	Current	Required	E	I	J	S	Ex	<ul style="list-style-type: none">- Standards development process- Standards development bodies- Standards-based open systems architecture- Reference models- Profiles of standards (e.g., DoD Technical Reference Model, Technical Architecture Framework for Information Management, Information Technology Standards Guidance, IEEE Open Systems Reference Model, NIST Applications Portability Profile)- Test & Evaluation- Reference Implementations- Standards compliance- Standards selection		
		0 1 2 3 4	0 1 2 3 4	X	X	X	X	X				
		<u>Developmental Opportunities:</u> Learning: <ul style="list-style-type: none">- Information Resources Management College, Managing Information Architectures and Infrastructures (all)- Information Resources Management College, Critical Information System Technologies (E, I, J)- Attend specific courses on standards (E, I, J)- Attend standards symposiums and technical conferences (I, J)- Subscribe to technical journals (E, I, J, S) Work-based: <ul style="list-style-type: none">- Serve on standards committees (J, S)- Serve on staff positions related to standards (all)	<u>Gap Assessment:</u> _____ - _____ = _____ Required Proficiency - Current Proficiency = Gap					<u>Gap Mitigation Strategy:</u>				

Career Area: Computer and Information Systems Engineering**Job Role: Architecture and Standards**

3	Competency: Human Computer Interface	Proficiency:		Level:					Skill Topics:
<u>Strategic Value:</u> To provide guidance to system developers in areas such as design, operation and maintenance of displays, operator controls and training programs. To ensure human computer interfaces are designed for usability with the needs, capabilities, and limitations of the users in mind and in accordance with DoD regulations.	<u>Learning Objectives:</u> Knowledge of and ability to apply human factors principles, methods, tools and guidance.	Current	Required	E	I	J	S	Ex	<ul style="list-style-type: none">- Human factors principles, methods and tools- Human-machine systems (human-in-the-loop)- Human factors engineering- Design, operation and maintenance of displays, operator controls, and training programs- Ergonomics- Safety- Federal and DoD human-computer interface regulations and guidelines- Human factors engineering principles- Accessibility- Human subjects experiments
		0 1 2 3 4	0 1 2 3 4	X	X	X	X		
	<u>Developmental Opportunities:</u> Learning: <ul style="list-style-type: none">- Attend Human Computer Interface conferences (I, J)- Take human factors engineering course (E, I)- Information Resources Management College, Critical Information System Technologies (E, I, J)	<u>Gap Assessment:</u> _____ - _____ = _____ Required Proficiency - Current Proficiency = Gap <u>Gap Mitigation Strategy:</u>							

Career Area: Computer and Information Systems Engineering**Job Role: Architecture and Standards**

4	Competency: Configuration Management	Proficiency:		Level:					Skill Topics:
<u>Strategic Value:</u> To ensure sound configuration management processes are established for information systems, to document mission support software and systems and to manage the configuration of existing networks.	<u>Learning Objectives:</u> Knowledge of and ability to identify, track (status accounting), control, and document information and physical characteristics of an information system or product (including documentation during a system's life cycle).	Current	Required	E	I	J	S	Ex	- Configuration management tools and methods - Tracking (status accounting), controlling and documenting information and physical characteristics of an information system or product - Configuration reviews and functional and physical auditing - DoD policies and guidelines - Protection of software (trusted)
		0 1 2 3 4	0 1 2 3 4	X	X	X	X		
	<u>Developmental Opportunities:</u> Learning: - Information Resources Management College, Managing Information Architectures and Infrastructures (all) - Information Resources Management College, Critical Information System Technologies (E, I, J) - Attend formal CM training (E, I) - Attend CM conferences (I, J, S) Work-based: - Participate in writing of CM plan (I, J) - Participate in a CM audit (I, J) - Serve on a configuration control board (I, J) - Attend a CCB meeting (E)	<u>Gap Assessment:</u> _____ - _____ = _____ Required Current = Gap Proficiency Proficiency <u>Gap Mitigation Strategy:</u>							

Career Area: Computer and Information Systems Engineering**Job Role: Architecture and Standards**

5	Competency: Requirements Analysis	Proficiency:		Level:					Skill Topics:
<u>Strategic Value:</u> To ensure stakeholder (e.g. customers, end-users) requirements are incorporated in the systems engineering of information systems.	<u>Learning Objectives:</u> Knowledge of and ability to identify, specify, analyze and manage customers' functional and infrastructure requirements.	Current	Required	E	I	J	S	Ex	- DoD, DON mission, organization and roles - Mission support requirements - Analysis tools and methods - Stakeholder (e.g., fleet, resource sponsor, end user, program office) requirements - Standards requirements specification - Operations and logistics requirements
		0 1 2 3 4	0 1 2 3 4	X	X	X	X		
	<u>Developmental Opportunities:</u> Learning: - Information Resources Management College, Managing Information Architectures and Infrastructures (all) - Information Resources Management College, Critical Information System Technologies (E, I, J) - Attend course on Requirements Specification (E, I) Work-based: - Work on specification writing team (E, I, J)	<u>Gap Assessment:</u> _____ - _____ = _____ Required Proficiency - Current Proficiency = Gap <u>Gap Mitigation Strategy:</u>							

Career Area: Computer and Information Systems Engineering**Job Role: Architecture and Standards**

6	Competency: Integration & Interoperability Engineering	Proficiency:		Level:					Skill Topics:
<u>Strategic Value:</u> To provide effective integration and interoperability with government elements, provide better use and sharing of existing government components, and use government resources more effectively. To develop strategies to ensure system security, interoperability, portability and scalability.	<u>Learning Objectives:</u> Knowledge of and ability to optimize systems, interfaces and interdependencies and focus on effective resource utilization.	Current	Required	E	I	J	S	Ex	<div>- Methods, tools and processes for integration and interoperability</div> <div>- Customer guidance</div> <div>- Joint interoperability</div> <div>- Information Assurance</div> <div>- Joint requirements</div>
		0 1 2 3 4	0 1 2 3 4		X	X	X	X	
	<u>Developmental Opportunities:</u> Learning: <div>- Information Resources Management College, Managing Information Architectures and Infrastructures (all)</div> <div>- Information Resources Management College, Critical Information System Technologies (I, J)</div> <div>- Attend community wide conferences to build knowledge base (I, J)</div> Work-based: <div>- Participate in integration testing (I)</div>	<u>Gap Assessment:</u> <div><div></div> - <div></div> = <div></div><div>Required Proficiency - Current Proficiency = Gap</div></div> <u>Gap Mitigation Strategy:</u>							

Career Area: Computer and Information Systems Engineering**Job Role: Architecture and Standards**

7	Competency: Common Operating Environment	Proficiency:		Level:					Skill Topics:
<u>Strategic Value:</u> To enable the continued development of applications that run on the Defense Information Infrastructure Common Operating Environment (DII COE), to promote standard interfaces and to promote interoperability.	<u>Learning Objectives:</u> Knowledge of and ability to apply a theoretical and practical understanding of the Joint Technical Architecture and the Common Operating Environment.	Current	Required	E	I	J	S	Ex	<ul style="list-style-type: none">- Systems architectures- Software Engineering- Applications engineering- Data engineering- Information assurance- Other IT skills (OS, systems interoperability and COE compliance, open systems standards, object oriented technology, multimedia, groupware technology, large scale systems)
		0 1 2 3 4	0 1 2 3 4		X	X	X		
	<u>Developmental Opportunities:</u> Learning: <ul style="list-style-type: none">- Information Resources Management College, Managing Information Architectures and Infrastructures (all)- Information Resources Management College, Critical Information System Technologies (I, J)- Defense Information Systems Agency courses on DII COE (all) Work-based: <ul style="list-style-type: none">- Develop COE compliant segments (all)	<u>Gap Assessment:</u> _____ - _____ = _____ Required Proficiency - Current Proficiency = Gap <u>Gap Mitigation Strategy:</u>							

Career Area: Computer and Information Systems Engineering**Job Role: Architecture and Standards**

8	Competency: System Integration		Proficiency:		Level:					Skill Topics:
<u>Strategic Value:</u> To manage the integration of subsystems into a system.	<u>Learning Objectives:</u> Knowledge of and ability to integrate large information systems.	Current	Required	E	I	J	S	Ex	<ul style="list-style-type: none">- Integration methods, tools and metrics- System interoperability- Software portability- Software scalability- System security- System and interface testing- DoD and DON Enterprise migration strategies- Analysis, identification and resolution of flaws- Interface definition- Interface configuration management	
		0 1 2 3 4	0 1 2 3 4		X	X	X			
	<u>Developmental Opportunities:</u> Learning: <ul style="list-style-type: none">- Information Resources Management College, Managing Information Architectures and Infrastructures (all)- Information Resources Management College, Critical Information System Technologies (I, J)- System engineering course (I)- Attend system engineering symposia (I, J, S)- Present at system engineering symposia (J, S) Work-based: <ul style="list-style-type: none">- Participate in interface design specification (I)- Participate in integration testing (I)- Management and supervisor training courses (J, S, Ex)	<u>Gap Assessment:</u> _____ - _____ = _____ Required - Current = Gap Proficiency Proficiency <u>Gap Mitigation Strategy:</u>								

Career Area: Computer and Information Systems Engineering**Job Role: Architecture and Standards**

9	Competency: Developmental Test & Evaluation (DT&E)	Proficiency:		Level:					Skill Topics:
<u>Strategic Value:</u> To promote the development and acceptance of information systems to meet stakeholder requirements; to promote compliance with standards; to promote interoperability of standards compliant products in support of DON acquisition.	<u>Learning Objectives:</u> Knowledge of and ability to analyze the technical characteristics, identify critical technical issues and design, implement, execute and report results.	Current	Required	E	I	J	S	Ex	<div>- DT&E</div> <div>- Requirements and developmental analysis</div> <div>- Test coverage performance metrics</div> <div>- Quality assurance</div> <div>- Performance assurance</div> <div>- Product assurance</div> <div>- Standards conformance testing</div> <div>- Interoperability certification</div> <div>- Security testing</div> <div>- IV&V</div>
		0 1 2 3 4	0 1 2 3 4	X	X	X	X		
	<u>Developmental Opportunities:</u> Learning: <div>- Information Resources Management College, Managing Information Architectures and Infrastructures (all)</div> <div>- Information Resources Management College, Critical Information System Technologies (E, I, J)</div> <div>- Attend testing conferences, such as ITEA conference (I, J)</div> <div>- Attend courses on test design (E, I)</div>	<u>Gap Assessment:</u> <div><div></div> - <div></div> = <div></div></div> <div>Required Proficiency - Current Proficiency = Gap</div> <u>Gap Mitigation Strategy:</u>							

Career Area: Computer and Information Systems Engineering**Job Role: Architecture and Standards**

10	Competency: Program Management	Proficiency:		Level:					Skill Topics:
<u>Strategic Value:</u> <i>To achieve the needed outcomes of a specific program and related projects by ensuring proper management, performance and administration.</i>	<u>Learning Objectives:</u> Knowledge of the required outcomes, functional and political environments, organizations, activities, and constraints affecting a program. Knowledge of project definition and the ability to: relate required results and costs; lead teams that include members not in one's chain of command; apply systematic thinking to develop action plans; develop approaches to satisfy requirements and resolve issues; and ensure overall project quality. A PM has the knowledge and ability to coordinate the work of assigned staff and other functional experts matrixed to support the task.	Current	Required	E	I	J	S	Ex	<ul style="list-style-type: none">- Program strategic planning- Program role in organization/enterprise- Visionary leadership- Performance assessment- Project integration management- Quality management- Risk management- Financial management
		0 1 2 3 4	0 1 2 3 4			X	X	X	
	<u>Developmental Opportunities:</u> Learning: <ul style="list-style-type: none">- Information Resources Management College: (J, S)--Information Management Planning--Information Technology Acquisition for the CIO--IT Project Management- STAR Program (all)- DAWIA (all))Work-based: <ul style="list-style-type: none">- Serve as Contracting Officer's Representative (J, S)- Serve as project engineer or project manager (J)	<u>Gap Assessment:</u> _____ - _____ = _____ Required - Current = Gap Proficiency Proficiency							
		<u>Gap Mitigation Strategy:</u>							

Career Area: Computer and Information Systems Engineering**Job Role: Architecture and Standards**

11	Competency: Contracting Officers Representative (COR)		Proficiency:		Level:					Skill Topics:											
			Current	Required	E	I	J	S	Ex												
<u>Strategic Value:</u> <i>To ensure contractor performance and delivery is in compliance with a given contract.</i>			<u>Learning Objectives:</u> Knowledge of and ability to make technical decisions within the scope of the contract/task; serve as the day-to-day point of contact for contractual matters; assess the technical quality of performed work; approve deliverables for acceptance.		0	1	2	3	4	0	1	2	3	4							- Deliverable item review and approval - Contract types (e.g., IDIQ, cost reimbursable, time and materials, firm fixed price) - Cost reporting - Contract rates - Delivery orders - Other direct costs (ODCs) - Contract Line Items (CLINs) - Contract milestones - Life cycle management - Statements of Work (SOW) - Contract options
<u>Developmental Opportunities:</u> Learning: - STAR Program (all) - DAWIA (all)			<u>Gap Assessment:</u> _____ - _____ = _____ Required Proficiency - Current Proficiency = Gap <u>Gap Mitigation Strategy:</u>																		

Career Area: Computer and Information Systems Engineering**Job Role: Architecture and Standards**

12	Competency: Information Assurance	Proficiency:		Level:					Skill Topics:
		Current	Required	E	I	J	S	Ex	
	<p><u>Strategic Value:</u></p> <p><i>To acquire, maintain and ensure the security of information systems in an effective, interoperable, scalable, reliable, integrated and affordable fashion.</i></p>	0 1 2 3 4	0 1 2 3 4	X	X	X	X	X	<ul style="list-style-type: none"> - Information Systems Security - National Level IM/IT Policy - Trusted Systems - Discretionary and Mandatory Access Control - Identification and Authentication - Common criteria, DITSCAP - Assurance Evidence
	<p><u>Learning Objectives:</u></p> <p>Knowledge of and ability to apply physical access controls, technical security countermeasures, classification and safeguarding of controlled information and operational & industrial security. Ability to validate that appropriate countermeasures are being integrated correctly into program and to ensure that assurance evidence that demonstrates that the system is secure are produced.</p>								
	<p><u>Developmental Opportunities:</u></p> <p>Learning:</p> <ul style="list-style-type: none"> - NETg Technical Training Courses (all) <p>Work-based:</p> <ul style="list-style-type: none"> - Partnering with Industry (all) 	<p><u>Gap Assessment:</u></p> <p>_____ - _____ = _____</p> <p>Required Proficiency - Current Proficiency = Gap</p> <p><u>Gap Mitigation Strategy:</u></p>							

Career Area: Computer and Information Systems Engineering**Job Role: Data Management**

1	Competency: Data Maintenance	Proficiency:		Level:					Skill Topics:		
<u>Strategic Value:</u> To oversee the maintenance and management of data across the enterprise and be responsible for central information planning and control.	<u>Learning Objectives:</u> Knowledge of and ability to develop and maintain a data architecture and provide the basis for the incremental, ordered design and development of systems based on successively more detailed levels of data modeling.	Current		Required		E	I	J	S	Ex	- DoD Data Administration - DII COE Shared Data Environment (SHADE) - C4ISR Core Architecture Data Model (CADM) - Commercial business practices (e.g., Enterprise Resource Planning)
		0 1 2 3 4	0 1 2 3 4	X	X	X					
	<u>Developmental Opportunities:</u> Learning: - Information Resources Management College, Data Management Strategies and Technologies: A Managerial Perspective (all) - Information Resources Management College, Critical Information System Technologies (E, I, J)	<u>Gap Assessment:</u> _____ - _____ = _____ Required Proficiency - Current Proficiency = Gap <u>Gap Mitigation Strategy:</u>									

Job Role: Data Management

2	Competency: E-Business	Proficiency:					Level:					Skill Topics:					
<u>Strategic Value:</u> To conduct business in an integrated and automated paperless information environment	<u>Learning Objectives:</u> Knowledge of and ability to develop and apply electronic commerce tools and electronic data interchange policy, practices, standards, and procedures.	Current					Required					E	I	J	S	Ex	- Electronic mail - Electronic bulletin board systems - Electronic funds transfer - Business Process Evaluation/Reengineering - Economic/Cost Benefit Analysis - Project Planning/Development - Enterprise Integration/Implementation - EC/EDI Standards - Coordination/Development Support - Training and awareness - WWW development and support
		0	1	2	3	4	0	1	2	3	4	X	X	X	X		
	<u>Developmental Opportunities:</u> Learning: - Information Resources Management College, Data Management Strategies and Technologies: A Managerial Perspective (all) - Information Resources Management College, Critical Information System Technologies (E, I, J) - Information Resources Management College, Strategic Management of Websites (I, J, S) - Attend electronic commerce web design course (E, I) Work-based: - Provide engineering support to electronic commerce project (E, I)	<u>Gap Assessment:</u> _____ - _____ = _____ Required - Current = Gap Proficiency Proficiency <u>Gap Mitigation Strategy:</u>															

Career Area: Computer and Information Systems Engineering**Job Role: Data Management**

3	Competency: Standards		Proficiency:		Level:					Skill Topics:
	<u>Strategic Value:</u> To promote interoperability, security, portability and scalability by ensuring requirements are inserted into standards development efforts, developing standards profiles and promoting the development of standards compliant products.	<u>Learning Objectives:</u> Knowledge of and ability to develop and maintain standards and to influence standards development and standards development bodies.	Current	Required	E	I	J	S	Ex	- Standards development process - Standards development bodies - Standards-based open systems architecture - Reference models - Profiles of standards (e.g., DoD Technical Reference Model, Technical Architecture Framework for Information Management, Information Technology Standards Guidance, IEEE Open Systems Reference Model, NIST Applications Portability Profile)
		0 1 2 3 4	0 1 2 3 4	X	X	X	X	X		
		<u>Developmental Opportunities:</u> Learning: - Information Resources Management College, Data Management Strategies and Technologies: A Managerial Perspective (all) - Information Resources Management College, Critical Information System Technologies (E, I, J) - Attend other courses on standards (E, I) - Attend standards symposiums and technical conferences (I, J) - Subscribe to technical journals (E, I, J, S) Work-based: - Serve on standards committees (J, S, Ex) - Serve on staff positions related to standards (all)	<u>Gap Assessment:</u> _____ - _____ = _____ Required Proficiency - Current Proficiency = Gap <u>Gap Mitigation Strategy:</u>							

Career Area: Computer and Information Systems Engineering**Job Role: Data Management**

4	Competency: Configuration Management	Proficiency:					Level:					Skill Topics:					
<u>Strategic Value:</u> To ensure sound configuration management processes are established for information systems, to document mission support software and systems and to manage the configuration of existing networks.	<u>Learning Objectives:</u> Knowledge of and ability to identify, track (status accounting), control, and document information and physical characteristics of an information system or product (including documentation during a system's life cycle).	Current					Required					E	I	J	S	Ex	- Configuration management tools and methods - Tracking (status accounting), controlling and documenting information and physical characteristics of an information system or product - Configuration reviews and functional and physical auditing - DoD policies and guidelines - Protection of software from malicious code
		0	1	2	3	4	0	1	2	3	4	X	X	X	X		
	<u>Developmental Opportunities:</u> Learning: - Information Resources Management College, Data Management Strategies and Technologies: A Managerial Perspective (all) - Information Resources Management College, Critical Information System Technologies (E, I, J) - Attend formal CM training (E, I) - Attend CM conferences (all)Work-based:- Participate in writing of CM plan (I, J) - Participate in a CM audit (I, J) - Serve on a configuration control board (all) - Attend a CCB meeting (E)	<u>Gap Assessment:</u> _____ - _____ = _____ Required - Current = Gap Proficiency Proficiency <u>Gap Mitigation Strategy:</u>															

Career Area: Computer and Information Systems Engineering**Job Role: Data Management**

5	Competency: Quality Assurance	Proficiency:		Level:					Skill Topics:
<u>Strategic Value:</u> To design, develop and deploy high quality systems by employing tools and methods that manage the system evolution.	<u>Learning Objectives:</u> Knowledge of and ability to apply principles, methods and tools of quality assurance; includes translating functional requirements into technical requirements used for logical design or presenting alternative technologies or approaches.	Current	Required	E	I	J	S	Ex	- Stakeholder requirements - Testing processes and procedures - OT&E - DT&E - IV&V - Performance measurement - Software metrics - Design reviews
		0 1 2 3 4	0 1 2 3 4	X	X	X	X		
	<u>Developmental Opportunities:</u> Learning: - Center for Quality Management courses (all) - Information Resources Management College, Critical Information System Technologies (E, I, J)	<u>Gap Assessment:</u> _____ - _____ = _____ Required Proficiency - Current Proficiency = Gap <u>Gap Mitigation Strategy:</u>							

Career Area: Computer and Information Systems Engineering**Job Role: Data Management**

6	Competency: Requirements Analysis	Proficiency:		Level:					Skill Topics:								
<u>Strategic Value:</u> To ensure stakeholder (e.g. customers, end-users) requirements are incorporated in the systems engineering of information systems.	<u>Learning Objectives:</u> Knowledge of and ability to analyze, identify, specify and manage functional and infrastructure requirements needed to achieve customer, organization and DON goals.	Current		Required		E	I	J	S	Ex	- DoD mission, organization and roles- DoD Components' (Services and Agencies) missions, organizations and roles - Unified Command structure, mission and roles - Mission support requirements- Analysis tools and methods - Stakeholder requirements - Operations and logistics requirements - Security requirements						
		0	1	2	3	4	0	1	2	3		4	X	X	X	X	
	<u>Developmental Opportunities:</u> Learning: - Information Resources Management College, Data Management Strategies and Technologies: A Managerial Perspective (all) - Information Resources Management College, Critical Information System Technologies (E, I, J) - Attend course on Requirements Specification (E, I) Work-based: - Work on specification writing team (E, I, J)	<u>Gap Assessment:</u> _____ - _____ = _____ Required Proficiency - Current Proficiency = Gap <u>Gap Mitigation Strategy:</u>															

Job Role: Data Management

7	Competency: Common Operating Environment	Proficiency:		Level:					Skill Topics:
<u>Strategic Value:</u> To enable the continued development of applications that run on the Defense Information Infrastructure Common Operating Environment (DII COE), to promote standard interfaces and to promote interoperability.	<u>Learning Objectives:</u> Knowledge of and ability to apply a theoretical and practical understanding of the Joint Technical Architecture and the Common Operating Environment.	Current	Required	E	I	J	S	Ex	- Systems architectures - Software Engineering - Applications engineering - Data engineering - Information assurance - Other IT skills (OS, systems interoperability and COE compliance, open systems standards, object oriented technology, multimedia, groupware technology, large scale systems)
		0 1 2 3 4	0 1 2 3 4		X	X	X		
	<u>Developmental Opportunities:</u> Learning: - Information Resources Management College, Data Management Strategies and Technologies: A Managerial Perspective (all) - Information Resources Management College, Managing Information Architectures and Infrastructures (all) - Information Resources Management College, Critical Information System Technologies (I, J) - Defense Information Systems Agency courses on DII COE (all) Work-based: - Develop DII COE compliant segments (all)	<u>Gap Assessment:</u> _____ - _____ = _____ Required Proficiency - Current Proficiency = Gap <u>Gap Mitigation Strategy:</u>							

Career Area: Computer and Information Systems Engineering**Job Role: Data Management**

8	Competency: Computer Systems Architecture	Proficiency:	Level:	Skill Topics:
<u>Strategic Value:</u> <i>To provide secure information systems that are effective, interoperable, scalable, reliable, integrated and affordable.</i>	<u>Learning Objectives:</u> Understanding of computer system components and their functions, including component interfaces and associated services.	Current 0 1 2 3 4	Required 0 1 2 3 4	E I J S Ex X X X X
	<u>Developmental Opportunities:</u> Learning: - Information Resources Management College, Data Management Strategies and Technologies: A Managerial Perspective (all) - Information Resources Management College, Managing Information Architectures and Infrastructures (all) - Information Resources Management College, Critical Information System Technologies (I, J)	<u>Gap Assessment:</u> _____ - _____ = _____ Required Proficiency - Current Proficiency = Gap <u>Gap Mitigation Strategy:</u>		- Computer systems architecture-Computer operation - System design, including hardware components and configuration - Data interchange services - Database management - Distributed processing - Operating Systems - Networks - Systems software - Computer design, including hardware components, configuration and interface - Cryptographic equipment and systems - DoD Security Architecture (MSL) - Specifications and uses of embedded computers

Career Area: Computer and Information Systems Engineering**Job Role: Data Management**

9	Competency: Information Assurance	Proficiency:	Level:	Skill Topics:
Strategic Value: <i>To acquire, maintain and ensure the security of information systems in an effective, interoperable, scalable, reliable, integrated and affordable fashion.</i>	Learning Objectives: Knowledge of and ability to protect information and information systems by ensuring their availability, authentication, confidentiality and integrity.	Current 0 1 2 3 4	Required 0 1 2 3 4	E I J S Ex X X X X
	Developmental Opportunities: Learning: - Information Resources Management College, Data Management Strategies and Technologies: A Managerial Perspective (all) - Information Resources Management College, Managing Information Security (all) - Information Resources Management College, Critical Information System Technologies (E, I, J) - NETg Technical Training Courses (all) Work-based :- Serve as an Information System Security Officer (ISSO) or assist the ISSO (J) - Develop security plans and/or policies (J, S) - Analyze security software, hardware support tools (I) - Conduct or assist in system risk assessments (I, J) - Conduct system vulnerability tests (J) - Perform or assist in system security certification and accreditation (I, J) - Partnering with Industry (all)	Gap Assessment: _____ - _____ = _____ Required Proficiency - Current Proficiency = Gap Gap Mitigation Strategy:		

- Information Systems Security
- Systems Analysis
- Systems Operation
- Systems Evaluation
- Systems Certification
- Countermeasures
- Internal and External Technical Advisement
- National Level IM/IT Policy
- Cryptography
- Common criteria, DITSCAP
- Assurance evidence
- Discretionary and Mandatory Access Control

Career Area: Computer and Information Systems Engineering**Job Role: Data Management**

10	Competency: Modeling and Simulation	Proficiency:					Level:					Skill Topics:					
<u>Strategic Value:</u> To evaluate and assess evolving information systems and to ensure greater efficiency, improved service, and cost effective operations.	<u>Learning Objectives:</u> Knowledge of and ability to apply modeling and simulation tools and techniques to characterize systems of interest, to support decisions involving requirements, to evaluate design alternatives, to support training, or to support operational preparation.	Current					Required					E	I	J	S	Ex	- Analytic modeling (includes methods and tools) - Time-step simulation - Event-step simulation - Trace capture/playback - Remote terminal emulation - Database sampling - Test data generators - Protocols for federated models (e.g., DIS, ALSP, HLA)
		0	1	2	3	4	0	1	2	3	4	X	X	X	X		
	<u>Developmental Opportunities:</u> Learning: - Information Resources Management College, Data Management Strategies and Technologies: A Managerial Perspective (all) - Information Resources Management College, Critical Information System Technologies (E, I, J) - Attend M&S conferences (I, J) Work-based: - Visiting other DoD/civilian sites to learn about modeling and simulation (all)	<u>Gap Assessment:</u> _____ - _____ = _____ Required Proficiency - Current Proficiency = Gap <u>Gap Mitigation Strategy:</u>															

Career Area: Computer and Information Systems Engineering**Job Role: Data Management**

11	Competency: Program Management	Proficiency:		Level:					Skill Topics:
<u>Strategic Value:</u> To achieve the needed outcomes of a specific program and related projects by ensuring proper management, performance and administration.	<u>Learning Objectives:</u> Knowledge of the required outcomes, functional and political environments, organizations, activities, and constraints affecting a program. Knowledge of project definition and the ability to: relate required results and costs; lead teams that include members not in one's chain of command; apply systematic thinking to develop action plans; develop approaches to satisfy requirements and resolve issues; and ensure overall project quality. A PM has the knowledge and ability to coordinate the work of assigned staff and other functional experts matrixed to support the task.	Current	Required	E	I	J	S	Ex	- Program strategic planning - Program role in organization/enterprise - Visionary leadership - Performance assessment - Project integration management - Quality management - Risk management - Financial management
		0 1 2 3 4	0 1 2 3 4			X	X	X	
	<u>Developmental Opportunities:</u> Learning: - Information Resources Management College: (J, S) --Information Management Planning --Information Technology Acquisition for the CIO --IT Project Management - STAR Program (all)- DAWIA (all) Work-based: - Serve as Contracting Officer's Representative (J, S) - Serve as project engineer or project manager (J)	<u>Gap Assessment:</u> _____ - _____ = _____ Required Proficiency - Current Proficiency = Gap <u>Gap Mitigation Strategy:</u>							

Career Area: Computer and Information Systems Engineering**Job Role: Data Management**

12	Competency: Contracting Officers Representative (COR)		Proficiency:		Level:					Skill Topics:
	Current	Required	E	I	J	S	Ex			
<u>Strategic Value:</u> <i>To ensure contractor performance and delivery is in compliance with a given contract.</i>	0 1 2 3 4	0 1 2 3 4		X	X	X				
<u>Learning Objectives:</u> Knowledge of and ability to make technical decisions within the scope of the contract/task; serve as the day-to-day point of contact for contractual matters; assess the technical quality of performed work; approve deliverables for acceptance.										
<u>Developmental Opportunities:</u> Learning: - STAR Program (all) - DAWIA (all)	<u>Gap Assessment:</u> <div style="display: flex; justify-content: space-between; width: 100%;"> _____ - _____ = _____ </div> <div style="display: flex; justify-content: space-between; width: 100%;"> Required Proficiency - Current Proficiency = Gap </div>									
	<u>Gap Mitigation Strategy:</u>									
	- Deliverable item review and approval- Contract types (e.g., IDIQ, cost reimbursable, time and materials, firm fixed price) - Cost reporting - Contract rates - Delivery orders - Other direct costs (ODCs) - Contract Line Items (CLINs) - Contract milestones - Life cycle management - Statements of Work (SOW) - Contract options									

Career Area: Computer and Information Systems Engineering**Job Role: Project Management**

1	Competency: Systems Development	Proficiency:		Level:					Skill Topics:
<u>Strategic Value:</u> To ensure that systems being developed meets functional requirements, are maintainable, secure, reliable, recoverable, on schedule and within cost.	<u>Learning Objectives:</u> Knowledge of and ability to apply traditional and emerging design methodologies and programming services for developing information technology products and systems.	Current	Required	E	I	J	S	Ex	- DoD policies and guidelines - Database architecture and DBMS - Configuration management - Network architecture and software - Open systems and standards - CASE methodology and tools - Operating systems - Programming languages and coding - Object-oriented technology - Software, hardware and system testing - Quality assurance - Business Process Reengineering - Software reuse - Software metrics - Common criteria, DITSCAP
		0 1 2 3 4	0 1 2 3 4			X	X		
	<u>Developmental Opportunities:</u> Learning: - Information Resources Management College, Critical Information System Technologies (J) - DAWIA systems engineering courses (J, S) Work-based: - Technical work in systems development (J, S)	<u>Gap Assessment:</u> _____ - _____ = _____ Required Proficiency - Current Proficiency = Gap <u>Gap Mitigation Strategy:</u>							

Career Area: Computer and Information Systems Engineering**Job Role: Project Management**

2	Competency: Systems Acquisition	Proficiency:		Level:					Skill Topics:
<u>Strategic Value:</u> To ensure the organization's products and services reflect scalable customer requirements, both cost and technical, in a competitive environment, and to ensure these requirements are met through the acquisition process.	<u>Learning Objectives:</u> Knowledge of and ability to apply Federal, DoD and DON acquisition management guidance and analytical methods to formally plan, organize, direct and control the program and project acquisition process.	Current	Required	E	I	J	S	Ex	<ul style="list-style-type: none">- Procurement processes- Acquisition documentation- Life-cycle management- Economic analysis principles- Activity-based costing- DoD, DON budget and procurement processes- BPR methodologies, metrics, tools, and techniques- Plan and budgetary document development to support requirements- Metrics and performance analysis- Acquisition, Distribution and Disposal- Federal laws and DoD, DON regulations
		0 1 2 3 4	0 1 2 3 4			X	X	X	
	<u>Developmental Opportunities:</u> Learning: <ul style="list-style-type: none">- Information Resources Management College: (all)<ul style="list-style-type: none">-- Information Management Planning-- Critical Information System Technologies- Information Resources Management College, Information Technology Acquisition for the CIO (S, Ex)- DAWIA program management courses (J, S, Ex) Work-based: <ul style="list-style-type: none">- Experience in acquisition programs (J, S, Ex)	<u>Gap Assessment:</u> _____ - _____ = _____ Required Proficiency - Current Proficiency = Gap							
<u>Gap Mitigation Strategy:</u>									

Career Area: Computer and Information Systems Engineering**Job Role: Project Management**

3	Competency: Info. Technology, Info. Mgmt., Knowledge Mgmt.	Proficiency:		Level:					Skill Topics:
		Current	Required	E	I	J	S	Ex	
<u>Strategic Value:</u> <i>To ensure organization information resources are strategic assets that will provide the backbone of DON decision-making needs by utilizing information and knowledge resources most effectively.</i>	<u>Learning Objectives:</u> Knowledge of and ability to manage information, knowledge, information technology and related resources according to Federal laws and DoD, DON regulations.	0 1 2 3 4	0 1 2 3 4			X	X	X	- Information management - Information resource management - Computing and Communications - IM/IT acquisition - Information resource management regulations, policies and procedures - Knowledge Management - Leadership - Performance assessment - Capital planning and investment - Technology advances - Strategic planning - Process/change management - IM/IT architecture - Information Assurance
	<u>Developmental Opportunities:</u> Learning: - Information Resources Management College, CIO Certificate Program (J, S, Ex) - Federal CIO Council, CIO University (S, Ex)	<u>Gap Assessment:</u> <div style="text-align: center;"> _____ - _____ = _____ Required Proficiency - Current Proficiency = Gap </div>							
		<u>Gap Mitigation Strategy:</u>							

Job Role: Project Management

4	Competency: Business Development	Proficiency:		Level:					Skill Topics:
<u>Strategic Value:</u> <i>To sustain the structure and operations of the organization within projected cost and revenue, and to ensure requirements for planned growth and technology insertion are met with adequate capital investment resources.</i>	<u>Learning Objectives:</u> Knowledge of and ability to apply financial management, cost and revenue projections, business cases, plans, methods, practices, policies and procedures, industry trends and market surveys, justifications, approvals, determinations and findings.	Current	Required	E	I	J	S	Ex	- Marketing - Customer business requirements - Competitive proposal preparation and presentation - Customer service - Business case analysis - Stakeholder mediation
	<u>Developmental Opportunities:</u> Learning: - Information Resources Management College, Critical Information System Technologies (J) - Managerial Accounting Course (all) - Financial management course (all)	<u>Gap Assessment:</u> <div> <div></div> <div>-</div> <div></div> <div>=</div> <div></div> </div> <div> <div>Required</div> <div>-</div> <div>Current</div> <div>=</div> <div>Gap</div> </div> <div>Proficiency</div> <div></div> <div>Proficiency</div>							
		<u>Gap Mitigation Strategy:</u> 							

Career Area: Computer and Information Systems Engineering**Job Role: Project Management**

5	Competency: Quality Assurance	Proficiency:		Level:					Skill Topics:								
<u>Strategic Value:</u> To design, develop and deploy high quality systems by employing tools and methods that manage the system evolution.	<u>Learning Objectives:</u> Knowledge of and ability to apply principles, methods and tools of quality assurance; includes translating functional requirements into technical requirements used for logical design or presenting alternative technologies or approaches.	Current					Required					E	I	J	S	Ex	- Stakeholder requirements - Testing processes and procedures - OT&E - DT&E - IV&V - Performance measurement - Software metrics - Design reviews
		0	1	2	3	4	0	1	2	3	4	X	X	X	X		
	<u>Developmental Opportunities:</u> Learning: - Center for Quality Management courses (all) - Information Resources Management College, Critical Information System Technologies (E, I, J)	<u>Gap Assessment:</u> _____ - _____ = _____ Required Proficiency - Current Proficiency = Gap <u>Gap Mitigation Strategy:</u>															

Career Area: Computer and Information Systems Engineering**Job Role: Project Management**

6	Competency: Configuration Management	Proficiency:		Level:					Skill Topics:
<u>Strategic Value:</u> To ensure sound configuration management processes are established for information systems, to document mission support software and systems and to manage the configuration of existing networks.	<u>Learning Objectives:</u> Knowledge of and ability to identify, track (status accounting), control, and document information and physical characteristics of an information system or product (including documentation during a system's life cycle).	Current	Required	E	I	J	S	Ex	- Configuration management tools and methods - Tracking (status accounting), controlling and documenting information and physical characteristics of an information system or product - Configuration reviews and functional and physical auditing - DoD policies and guidelines - Protection of software (trusted)
		0 1 2 3 4	0 1 2 3 4			X	X		
	<u>Developmental Opportunities:</u> Learning: - Information Resources Management College, Managing Information Architectures and Infrastructures (all) - Information Resources Management College, Critical Information System Technologies (J) - Attend formal CM training (E, I) - Attend CM conferences (I, J, S) Work-based: - Participate in writing of CM plan (I, J) - Participate in a CM audit (I, J) - Serve on a configuration control board (I, J) - Attend a CCB meeting (E)	<u>Gap Assessment:</u> _____ - _____ = _____ Required Proficiency - Current Proficiency = Gap <u>Gap Mitigation Strategy:</u>							

Career Area: Computer and Information Systems Engineering**Job Role: Project Management**

7	Competency: Risk Management		Proficiency:		Level:					Skill Topics:
			Current	Required	E	I	J	S	Ex	
<u>Strategic Value:</u> <i>To evaluate information systems to identify residual risks to make recommendations to meet the appropriate organizational requirements.</i>	<u>Learning Objectives:</u> Knowledge of and ability to use methods and tools used for risk assessment and mitigation of risk to information systems and data.		0 1 2 3 4	0 1 2 3 4			X	X	X	- Risk management policies and procedures - Hardware/software risks and vulnerabilities - Risk management methods and tools
	<u>Developmental Opportunities:</u> Learning: - Information Resources Management College, Critical Information System Technologies (J) - STAR Program (all) - DAWIA (all) Work-based: - Serve as Contracting Officer's Representative (J, S)	<u>Gap Assessment:</u> _____ - _____ = _____ Required Proficiency - Current Proficiency = Gap <u>Gap Mitigation Strategy:</u>								

Career Area: Computer and Information Systems Engineering**Job Role: Project Management**

8	Competency: Architecture	Proficiency:		Level:						Skill Topics:
<u>Strategic Value:</u> To provide secure information systems that are efficient, effective, interoperable, scalable, reliable, integrated and affordable.	<u>Learning Objectives:</u> Understanding the operational, systems and technical views of the architecture framework endorsed by DoD, and their application in computer and information systems components.	Current	Required	E	I	J	S	Ex	<ul style="list-style-type: none">- OMB Memo M-97-16- C4ISR architecture framework- Process modeling- Data interchange services- Computer systems architecture- System design, including hardware components and configuration- Database management- Distributed processing- Operating Systems- Networks- Systems software- Technical Standards--their role and specific standards in use and adopted by DoD and DON- Cryptographic equipment and systems- DoD Security Architecture (MSL)	
		0 1 2 3 4	0 1 2 3 4	X	X	X	X			
	<u>Developmental Opportunities:</u> Learning: <ul style="list-style-type: none">- Information Resources Management College, Managing Information Architectures and Infrastructures (all)- Information Resources Management College, Critical Information System Technologies (E, I, J)	<u>Gap Assessment:</u> _____ - _____ = _____ Required Proficiency - Current Proficiency = Gap <u>Gap Mitigation Strategy:</u>								

Career Area: Computer and Information Systems Engineering**Job Role: Project Management**

9	Competency: Business Process Reengineering	Proficiency:	Level:	Skill Topics:
<u>Strategic Value:</u> <i>To ensure the organization's methods and processes support customer requirements, both cost and technical.</i>	<u>Learning Objectives:</u> Knowledge of and ability to apply analytical methods and procedures to review and assess information management processes and procedures to support the development and enhancement of administrative processes, procedures and organizations.	Current	Required E I J S Ex	- Economic analysis principles - Activity-based costing - DoD and DON budget and procurement processes - BPR methodologies, metrics, tools and techniques - Automated information systems for specific computer projects - Plan and budgetary document development to support requirements - Continuous improvement principles
	<u>Developmental Opportunities:</u> Learning: - DoD BPR Certificate Program (all) - Information Resources Management College: (all) -- Reengineering Organizational Processes -- Information Measuring Results of Organizational Performance- Information Resources Management College, Critical Information System Technologies (E, I, J) - Attend business process reengineering course (I, J) - Attend creative thinking seminar (I) - Attend BPR conferences (I, J, S) Work-based: - Participate in BPR team (I, J) - Lead BPR effort (J, S)	0 1 2 3 4 0 1 2 3 4		
		<u>Gap Assessment:</u> <div> <div></div> <div>-</div> <div></div> <div>=</div> <div></div> </div> <div> <div>Required</div> <div>-</div> <div>Current</div> <div>=</div> <div>Gap</div> </div> <div>Proficiency</div> <div>Proficiency</div>		<u>Gap Mitigation Strategy:</u>

Career Area: Computer and Information Systems Engineering**Job Role: Project Management**

10	Competency: E-Business	Proficiency:		Level:					Skill Topics:						
<u>Strategic Value:</u> To conduct business in an integrated and automated paperless information environment	<u>Learning Objectives:</u> Knowledge of and ability to develop and apply electronic commerce tools and electronic data interchange policy, practices, standards, and procedures.	Current		Required		E	I	J	S	Ex	<ul style="list-style-type: none">- Electronic mail- Electronic bulletin board systems- Electronic funds transfer- Business Process Evaluation/Reengineering- Economic/Cost Benefit Analysis- Project Planning/Development- Enterprise Integration/Implementation- EC/EDI Standards- Coordination/Development Support- Training and awareness- WWW development and support				
		0	1	2	3	4	0	1	2	3		4	X	X	X
	<u>Developmental Opportunities:</u> Learning: <ul style="list-style-type: none">- Information Resources Management College, Data Management Strategies and Technologies: A Managerial Perspective (all)- Information Resources Management College, Critical Information System Technologies (E, I, J)- Information Resources Management College, Strategic Management of Websites (I, J, S)- Attend electronic commerce web design course (E, I) Work-based: <ul style="list-style-type: none">- Provide engineering support to electronic commerce project (E, I)	<u>Gap Assessment:</u> _____ - _____ = _____ Required Proficiency - Current Proficiency = Gap <u>Gap Mitigation Strategy:</u>													

Career Area: Computer and Information Systems Engineering**Job Role: Project Management**

11	Competency: Life Cycle Management	Proficiency:		Level:					Skill Topics:
<u>Strategic Value:</u> To ensure adherence to Federal law and DOD Life Cycle regulations in the acquisition, maintenance, operation and disposal of required hardware, support services and other materials.	<u>Learning Objectives:</u> Knowledge of and ability to acquire required hardware, software, support services and other materials.	Current	Required	E	I	J	S	Ex	- Project Planning - AIS Life Cycle Management
		0 1 2 3 4	0 1 2 3 4		X	X	X		
	<u>Developmental Opportunities:</u> Learning: - Information Resources Management College, Information Management Planning (all) - Information Resources Management College, Information Technology Acquisition for the CIO (S) - Information Resources Management College, Critical Information System Technologies (I, J)	<u>Gap Assessment:</u> _____ - _____ = _____ Required Proficiency - Current Proficiency = Gap <u>Gap Mitigation Strategy:</u>							

Career Area: Computer and Information Systems Engineering**Job Role: Project Management**

12	Competency: Requirements Management		Proficiency:		Level:					Skill Topics:
			Current	Required	E	I	J	S	Ex	
Strategic Value: <i>To ensure stakeholder (e.g. customers, end-users) requirements are incorporated in the systems engineering of information systems.</i>	Learning Objectives: Knowledge of and ability to analyze, identify, specify and manage functional and infrastructure requirements needed to achieve customer, organization and DON goals.	0 1 2 3 4	0 1 2 3 4	X	X	X	X			- DoD mission, organization and roles - DoD Components' (Services and Agencies) missions, organizations and roles - Unified Command structure, mission and roles - Mission support requirements - Analysis tools and methods - Stakeholder requirements - Operations and logistics requirements - Security requirements
	Developmental Opportunities: Learning: - Attend course on Requirements Specification (E, I) - Information Resources Management College, Critical Information System Technologies (E, I, J) Work-based: - Work on specification writing team (E, I, J)	Gap Assessment: <div style="text-align: center;"> _____ - _____ = _____ Required Proficiency - Current Proficiency = Gap </div> Gap Mitigation Strategy:								

Career Area: Computer and Information Systems Engineering**Job Role: Project Management**

13	Competency: Standards	Proficiency:					Level:					Skill Topics:					
<u>Strategic Value:</u> To promote interoperability, security, portability and scalability by ensuring requirements are inserted into standards development efforts, developing standards profiles and promoting the development of standards compliant products.	<u>Learning Objectives:</u> Knowledge of and ability to develop and maintain standards and to influence standards development and standards development bodies.	Current					Required					E	I	J	S	Ex	<ul style="list-style-type: none">- Standards development process- Standards development bodies- Standards-based open systems architecture- Reference models- Profiles of standards (e.g., DoD Technical Reference Model, Technical Architecture Framework for Information Management, Information Technology Standards Guidance, IEEE Open Systems Reference Model, NIST Applications Portability Profile)- Test & Evaluation- Reference Implementations- Standards compliance- Standards selection
	<u>Developmental Opportunities:</u> Learning: <ul style="list-style-type: none">- Information Resources Management College, Managing Information Architectures and Infrastructures (all)- Information Resources Management College, Critical Information System Technologies (E, I, J)- Attend specific courses on standards (E, I, J)- Attend standards symposiums and technical conferences (I, J)- Subscribe to technical journals (E, I, J, S) Work-based: <ul style="list-style-type: none">- Serve on standards committees (J, S)- Serve on staff positions related to standards (all)	<u>Gap Assessment:</u> _____ - _____ = _____ Required Proficiency - Current Proficiency = Gap <u>Gap Mitigation Strategy:</u>															

Career Area: Computer and Information Systems Engineering**Job Role: Project Management**

14	Competency: Program Management	Proficiency:		Level:					Skill Topics:
		Current	Required	E	I	J	S	Ex	
Strategic Value: <i>To achieve the needed outcomes of a specific program and related projects by ensuring proper management, performance and administration.</i>	Learning Objectives: Knowledge of the required outcomes, functional and political environments, organizations, activities, and constraints affecting a program. Knowledge of project definition and the ability to: relate required results and costs; lead teams that include members not in one's chain of command; apply systematic thinking to develop action plans; develop approaches to satisfy requirements and resolve issues; and ensure overall project quality. A PM has the knowledge and ability to coordinate the work of assigned staff and other functional experts matrixed to support the task.	0 1 2 3 4	0 1 2 3 4			X	X	X	- Program strategic planning - Program role in organization/enterprise - Visionary leadership - Performance assessment - Project integration management - Quality management - Risk management - Financial management
	Developmental Opportunities: Learning: - Information Resources Management College: (J, S) --Information Management Planning --Information Technology Acquisition for the CIO --IT Project Management- STAR Program (all) - DAWIA (all) Work-based: - Serve as Contracting Officer's Representative (J, S) - Serve as project engineer or project manager (J)	Gap Assessment: _____ - _____ = _____ Required Proficiency - Current Proficiency = Gap							
Gap Mitigation Strategy:									

Career Area: Computer and Information Systems Engineering**Job Role: Project Management**

15	Competency: Contracting Officers Representative (COR)		Proficiency:		Level:					Skill Topics:
			Current	Required	E	I	J	S	Ex	
<u>Strategic Value:</u> <i>To ensure contractor performance and delivery is in compliance with a given contract.</i>	<u>Learning Objectives:</u> Knowledge of and ability to make technical decisions within the scope of the contract/task; serve as the day-to-day point of contact for contractual matters; assess the technical quality of performed work; approve deliverables for acceptance.		0 1 2 3 4	0 1 2 3 4		X	X	X		- Deliverable item review and approval - Contract types (e.g., IDIQ, cost reimbursable, time and materials, firm fixed price) - Cost reporting - Contract rates - Delivery orders - Other direct costs (ODCs) - Contract Line Items (CLINs) - Contract milestones - Life cycle management - Statements of Work (SOW) - Contract options
	<u>Developmental Opportunities:</u> Learning: - STAR Program (all) - DAWIA (all)	<u>Gap Assessment:</u> <div style="text-align: center;"> _____ - _____ = _____ Required Current Proficiency Proficiency Gap </div> <u>Gap Mitigation Strategy:</u>								

Career Area: Computer and Information Systems Engineering**Job Role: Project Management**

16	Competency: Information Assurance	Proficiency:		Level:					Skill Topics:
<u>Strategic Value:</u> To acquire, maintain and ensure the security of information systems in an effective, interoperable, scalable, reliable, integrated and affordable fashion.	<u>Learning Objectives:</u> Knowledge of and ability to apply physical access controls, technical security countermeasures, classification and safeguarding of controlled information and operational & industrial security. Ability to validate that appropriate countermeasures are being integrated correctly into program and to ensure that assurance evidence that demonstrates that the system is secure are produced.	Current	Required	E	I	J	S	Ex	- Information Systems Security - National Level IM/IT Policy - Trusted Systems - Discretionary and Mandatory Access Control - Identification and Authentication - Common criteria, DITSCAP - Assurance Evidence
		0 1 2 3 4	0 1 2 3 4	X	X	X	X	X	
	<u>Developmental Opportunities:</u> Learning: - NETg Technical Training Courses (all) Work-based: - Partnering with Industry (all)	<u>Gap Assessment:</u> _____ - _____ = _____ Required Proficiency - Current Proficiency = Gap <u>Gap Mitigation Strategy:</u>							

Career Area: Computer and Information Systems Engineering**Job Role: Research and Development**

1	Competency: Basic Scientific Research		Proficiency:		Level:					Skill Topics:
			Current	Required	E	I	J	S	Ex	
Strategic Value: To conduct basic scientific research to support future DON information systems.	Learning Objectives: Knowledge of and ability to conduct cutting edge research and apply it to future DON needs.		0 1 2 3 4	0 1 2 3 4				X	X	- Publications and technical writing - Literature searches - Cooperative Research and Development Agreements (CRADAs) - Technical speech and presentation - Proposal development
	Developmental Opportunities: Learning: - Information Resources Management College, Critical Information System Technologies (J) - Classes for background as needed for new research topics (all) Work-based: - Conferences, workshops, presenting papers (all)- Professional study, journals, conference proceedings (all)- Professional association membership (all)- Program Chair / Committees (all)- Dissertation committees (all)- Organizational trends (S, Ex)- Evaluating proposals (S, Ex)	Gap Assessment: _____ - _____ = _____ Required Proficiency - Current Proficiency = Gap Gap Mitigation Strategy:								

Career Area: Computer and Information Systems Engineering**Job Role: Research and Development**

2	Competency: Applied Research		Proficiency:		Level:					Skill Topics:
	Current	Required	E	I	J	S	Ex			
<u>Strategic Value:</u> <i>To apply basic research in support of future DON information systems.</i>	0 1 2 3 4	0 1 2 3 4				X	X			
<u>Learning Objectives:</u> Knowledge of and ability to conduct and apply cutting edge research and apply it to future DON needs.										
<u>Developmental Opportunities:</u> Learning: - Information Resources Management College, \ (J) Work-based: - Conferences, workshops, presenting papers (all) - Professional study, journals (all) - Professional association membership (all) - Program Chair / Committees (all) - Dissertation committees (all) - Organizational trends (S, Ex) - Evaluating proposals (S, Ex) - Investigate potential applications (all)	<u>Gap Assessment:</u> _____ - _____ = _____ Required Proficiency - Current Proficiency = Gap <u>Gap Mitigation Strategy:</u>									
- Requirements analysis - Customer functional and infrastructure analysis - Customer information management - Customer requirements - Converting research into prototype systems - Transitioning from prototype systems to engineering development models - Test & Evaluation - Product design - Systems integration - CRADAs - Liaison with universities, industry										

Career Area: Computer and Information Systems Engineering**Job Role: Research and Development**

3	Competency: Advanced Concept Technology Demonstration		Proficiency:		Level:					Skill Topics:										
			Current	Required	E	I	J	S	Ex											
<u>Strategic Value:</u> To develop prototypes of advanced technology for use in future DON information systems.			<u>Learning Objectives:</u> Knowledge of and ability to apply cutting edge research into advanced concept technology demonstrations.		0	1	2	3	4	0	1	2	3	4	X	X	X	X		- Demonstrations and validation - Customer requirements and support - Training - Graphical User Interface improvement - Incremental development - System integration and management - Proposal development
<u>Developmental Opportunities:</u> Learning: - Information Resources Management College, Critical Information System Technologies (E, I, J) Work-based: - Conferences, workshops, presenting papers (all) - Professional study, journals (all) - Professional association membership (all) - Program Chair / Committees (all) - Dissertation committees (all) - Organizational trends (S, Ex) - Evaluating proposals (S, Ex) - Investigate potential applications (all)			<u>Gap Assessment:</u> _____ - _____ = _____ Required Proficiency - Current Proficiency = Gap <u>Gap Mitigation Strategy:</u>																	

Career Area: Computer and Information Systems Engineering**Job Role: Research and Development**

4	Competency: Requirements Analysis		Proficiency:		Level:					Skill Topics:
			Current	Required	E	I	J	S	Ex	
Strategic Value: <i>To ensure stakeholder (e.g. customers, end-users) requirements are incorporated in the systems engineering of information systems.</i>	Learning Objectives: Knowledge of and ability to analyze, identify, specify and manage functional and infrastructure requirements needed to achieve customer, organization and DON goals.	0 1 2 3 4	0 1 2 3 4	X	X	X	X			- DoD mission, organization and roles - DoD Components' (Services and Agencies) missions, organizations and roles - Unified Command structure, mission and roles - Mission support requirements - Analysis tools and methods - Stakeholder requirements - Operations and logistics requirements - Security requirements
	Developmental Opportunities: Learning: - Attend course on Requirements Specification (E, I) - Information Resources Management College, Critical Information System Technologies (E, I, J) Work-based: - Work on specification writing team (E, I, J)	Gap Assessment: <div style="text-align: center;"> _____ - _____ = _____ Required Proficiency - Current Proficiency = Gap </div> Gap Mitigation Strategy:								

Career Area: Computer and Information Systems Engineering**Job Role: Research and Development**

5	Competency: Modeling and Simulation	Proficiency:		Level:					Skill Topics:
<u>Strategic Value:</u> To evaluate and assess evolving information systems and to ensure greater efficiency, improved service, and cost effective operations.	<u>Learning Objectives:</u> Knowledge of and ability to apply modeling and simulation tools and techniques to characterize systems of interest, to support decisions involving requirements, to evaluate design alternatives, to support training, or to support operational preparation.	Current	Required	E	I	J	S	Ex	- Analytic modeling (includes methods and tools) - Time-step simulation - Event-step simulation - Trace capture/playback - Remote terminal emulation - Database sampling - Test data generators - Protocols for federated models (e.g., DIS, ALSP, HLA) - Simulation-based design
		0 1 2 3 4	0 1 2 3 4	X	X	X	X		
	<u>Developmental Opportunities:</u> Learning: - Attend M&S conferences (I, J) - Information Resources Management College, Critical Information System Technologies (E, I, J) Work-based: - Visiting other DoD/civilian sites to learn about modeling and simulation (all)	<u>Gap Assessment:</u> _____ - _____ = _____ Required Proficiency - Current Proficiency = Gap <u>Gap Mitigation Strategy:</u>							

Career Area: Computer and Information Systems Engineering**Job Role: Research and Development**

6	Competency: Program Management	Proficiency:		Level:					Skill Topics:	
<u>Strategic Value:</u> <i>To achieve the needed outcomes of a specific program and related projects by ensuring proper management, performance and administration.</i>	<u>Learning Objectives:</u> Knowledge of the required outcomes, functional and political environments, organizations, activities, and constraints affecting a program. Knowledge of project definition and the ability to: relate required results and costs; lead teams that include members not in one's chain of command; apply systematic thinking to develop action plans; develop approaches to satisfy requirements and resolve issues; and ensure overall project quality. A PM has the knowledge and ability to coordinate the work of assigned staff and other functional experts matrixed to support the task.	Current	Required	E	I	J	S	Ex	<ul style="list-style-type: none">- Program strategic planning- Program role in organization/enterprise- Visionary leadership- Performance assessment- Project integration management- Quality management- Risk management- Financial management- Publications and technical writing- Literature searches- Cooperative Research and Development Agreements (CRADAs)- Technical speech and presentation- Proposal development	
	0 1 2 3 4	0 1 2 3 4				X	X	X		
	<u>Developmental Opportunities:</u> Learning: <ul style="list-style-type: none">- Information Resources Management College: (J, S)--Information Management Planning--Information Technology Acquisition for the CIO--IT Project Management - STAR Program (all) - DAWIA (all) Work-based: <ul style="list-style-type: none">- Serve as Contracting Officer's Representative (J, S)- Serve as project engineer or project manager (J)									<u>Gap Assessment:</u> _____ - _____ = _____ Required Current = Gap Proficiency Proficiency <u>Gap Mitigation Strategy:</u>

Career Area: Computer and Information Systems Engineering**Job Role: Research and Development**

7	Competency: Contracting Officers Representative (COR)		Proficiency:		Level:					Skill Topics:
			Current	Required	E	I	J	S	Ex	
<u>Strategic Value:</u> <i>To ensure contractor performance and delivery is in compliance with a given contract.</i>	<u>Learning Objectives:</u> Knowledge of and ability to make technical decisions within the scope of the contract/task; serve as the day-to-day point of contact for contractual matters; assess the technical quality of performed work; approve deliverables for acceptance.		0 1 2 3 4	0 1 2 3 4		X	X	X		- Deliverable item review and approval - Contract types (e.g., IDIQ, cost reimbursable, time and materials, firm fixed price) - Cost reporting - Contract rates - Delivery orders - Other direct costs (ODCs) - Contract Line Items (CLINs) - Contract milestones- Life cycle management - Statements of Work (SOW) - Contract options
	<u>Developmental Opportunities:</u> Learning: - STAR Program (all) - DAWIA (all)	<u>Gap Assessment:</u> <div style="text-align: center;"> _____ - _____ = _____ Required Proficiency - Current Proficiency = Gap </div> <u>Gap Mitigation Strategy:</u>								

Job Role: Research and Development

8	Competency: Information Assurance	Proficiency:		Level:					Skill Topics:
<u>Strategic Value:</u> To acquire, maintain and ensure the security of information systems in an effective, interoperable, scalable, reliable, integrated and affordable fashion.	<u>Learning Objectives:</u> Knowledge of and ability to apply physical access controls, technical security countermeasures, classification and safeguarding of controlled information and operational & industrial security. Ability to validate that appropriate countermeasures are being integrated correctly into program and to ensure that assurance evidence that demonstrates that the system is secure are produced.	Current	Required	E	I	J	S	Ex	<ul style="list-style-type: none">- Information Systems Security- National Level IM/IT Policy- Trusted Systems- Discretionary and Mandatory Access Control- Identification and Authentication- Common criteria, DITSCAP- Assurance Evidence
		0 1 2 3 4	0 1 2 3 4	X	X	X	X	X	
	<u>Developmental Opportunities:</u> Learning: - NETg Technical Training Courses (all) Work-based: - Partnering with Industry (all)	<u>Gap Assessment:</u> _____ - _____ = _____ Required Proficiency - Current Proficiency = Gap							
		<u>Gap Mitigation Strategy:</u>							

Career Area: Computer and Information Systems Engineering**Job Role: Software Engineering**

1	Competency: Software Development	Proficiency:		Level:					Skill Topics:
<u>Strategic Value:</u> To develop software, including software that must satisfy critical requirements, and to ensure that sound software development practices are in place for information systems, engineering programs, or projects.	<u>Learning Objectives:</u> Knowledge of and ability to apply traditional and emerging design methodologies and programming services for developing software products and systems, including assurance products that demonstrate that critical properties have been satisfied.	Current	Required	E	I	J	S	Ex	<ul style="list-style-type: none">- Software development life cycle phases- Traditional and emerging design methodologies for software production and system development- DoD policies and guidelines- Information engineering- Database architecture and software- Network architecture and software- Open systems and software standards- Object oriented design methodologies- Operating systems- Programming languages and coding- Software testing and quality assurance- Business Process Engineering (BPE) and Reengineering (BPR)- Software systems engineering- Applications configuration management- SEI Capability Maturity Model- Common criteria, DITSCAP-Formal specifications, theorem provers, etc.
	<u>Developmental Opportunities:</u> Learning: <ul style="list-style-type: none">- Classes on programming languages (E, I, J)- Classes in Software engineering (E, I, J)- Class in capability maturity model (E, I, J)- Information Resources Management College, Critical Information System Technologies (E, I, J) Work-based: <ul style="list-style-type: none">- Participate in in-house software development project (E, I)- Lead in house software development team (J)	<u>Gap Assessment:</u> _____ - _____ = _____ Required Proficiency - Current Proficiency = Gap							
		<u>Gap Mitigation Strategy:</u>							

Career Area: Computer and Information Systems Engineering**Job Role: Software Engineering**

2	Competency: Software Reuse	Proficiency:					Level:					Skill Topics:					
<u>Strategic Value:</u> To locate, assess and reutilize software components and to determine effectiveness of generalizing existing applications for wider use. To develop software and software architectures that are reusable.	<u>Learning Objectives:</u> Knowledge of and ability to reuse software components across multiple applications. Knowledge of and ability to use software standards, architectures, and software engineering methodologies that produce reusable software.	Current					Required					E	I	J	S	Ex	<ul style="list-style-type: none">- Software reuse- Defense Software Repository System- Information systems engineering- Domain engineering- Government and commercial reuse repositories- Software components- Application systems- Interface services- DoD, Federal Government and DON policies, guidelines and practices governing software reuse- Asset management- Quality assurance- Reusable assets (e.g., process models, architectures, guidelines, code, data)- Software repositories- Case based reasoning- Indexing methods (libraries)
		0	1	2	3	4	0	1	2	3	4	X	X	X	X		
	<u>Developmental Opportunities:</u> Learning: <ul style="list-style-type: none">- Attend re-use briefings at software engineering conferences (E, I)- Information Resources Management College, Critical Information System Technologies (E, I, J) Work-based: <ul style="list-style-type: none">- Browse through existing software repositories (E, I)- identify possible reusable components within existing software (I)	<u>Gap Assessment:</u> _____ - _____ = _____ Required Proficiency - Current Proficiency = Gap															
		<u>Gap Mitigation Strategy:</u>															

Career Area: Computer and Information Systems Engineering**Job Role: Software Engineering**

3	Competency: Computer Aided Software Engineering (CASE)	Proficiency:		Level:					Skill Topics:
<u>Strategic Value:</u> To ensure sound engineering principles are followed and security is incorporated throughout the software/computer system life cycle (e.g., requirements analysis, systems development, reengineering, software development, operational testing, and maintenance).	<u>Learning Objectives:</u> Knowledge of and ability to apply DoD and DON approved automated tools and methodologies for software engineering.	Current	Required	E	I	J	S	Ex	- DoD Integrated CASE tools - CASE methodologies - BPA/BPE/BPR - Automated testing - Software and system development life cycle - Requirements analysis - Systems development - Reengineering
		0 1 2 3 4	0 1 2 3 4	X	X	X	X		
	<u>Developmental Opportunities:</u> Learning: - Information Resources Management College, Critical Information System Technologies (E, I, J)	<u>Gap Assessment:</u> _____ - _____ = _____ Required Proficiency - Current Proficiency = Gap <u>Gap Mitigation Strategy:</u>							

Career Area: Computer and Information Systems Engineering**Job Role: Software Engineering**

4	Competency: Human Computer Interface	Proficiency:		Level:					Skill Topics:
<u>Strategic Value:</u> To provide guidance to system developers in areas such as design, operation and maintenance of displays, operator controls and training programs. To ensure human computer interfaces are designed for usability with the needs, capabilities, and limitations of the users in mind and in accordance with DoD regulations.	<u>Learning Objectives:</u> Knowledge of and ability to apply human factors principles, methods, tools and guidance.	Current	Required	E	I	J	S	Ex	<ul style="list-style-type: none">- Human factors principles, methods and tools- Human-machine systems (human-in-the-loop)- Human factors engineering- Design, operation and maintenance of displays, operator controls, and training programs- Ergonomics- Safety- Federal and DoD human-computer interface regulations and guidelines- Human factors engineering principles- Accessibility- Human subjects experiments
		0 1 2 3 4	0 1 2 3 4	X	X	X	X		
	<u>Developmental Opportunities:</u> Learning: <ul style="list-style-type: none">- Attend Human Computer Interface conferences (I, J)- Take human factors engineering course (E, I)- Information Resources Management College, Critical Information System Technologies (E, I, J)	<u>Gap Assessment:</u> _____ - _____ = _____ Required Proficiency - Current Proficiency = Gap <u>Gap Mitigation Strategy:</u>							

Career Area: Computer and Information Systems Engineering**Job Role: Software Engineering**

5	Competency: Common Operating Environment		Proficiency:		Level:					Skill Topics:
<u>Strategic Value:</u> To enable the continued development of applications that run on the Defense Information Infrastructure Common Operating Environment (DII COE), to promote standard interfaces and to promote interoperability.	<u>Learning Objectives:</u> Knowledge of and ability to apply a theoretical and practical understanding of the Joint Technical Architecture and the Common Operating Environment.	Current	Required	E	I	J	S	Ex	<ul style="list-style-type: none">- Systems architectures- Software Engineering- Applications engineering- Data engineering- Information assurance- Other IT skills (OS, systems interoperability and COE compliance, open systems standards, object oriented technology, multimedia, groupware technology, large scale systems)	
		0 1 2 3 4	0 1 2 3 4		X	X	X			
	<u>Developmental Opportunities:</u> Learning: <ul style="list-style-type: none">- Information Resources Management College, Managing Information Architectures and Infrastructures (all)- Information Resources Management College, Critical Information System Technologies (I, J)- Defense Information Systems Agency courses on DII COE (all) Work-based: <ul style="list-style-type: none">- Develop COE compliant segments (all)	<u>Gap Assessment:</u> _____ - _____ = _____ Required Proficiency - Current Proficiency = Gap <u>Gap Mitigation Strategy:</u>								

Career Area: Computer and Information Systems Engineering**Job Role: Software Engineering**

6	Competency: Computer Systems Architecture	Proficiency:		Level:					Skill Topics:
<u>Strategic Value:</u> To provide secure information systems that are effective, interoperable, scalable, reliable, integrated and affordable.	<u>Learning Objectives:</u> Understanding of computer system components and their functions, including component interfaces and associated services.	Current	Required	E	I	J	S	Ex	<ul style="list-style-type: none">- Computer systems architecture-Computer operation- System design, including hardware components and configuration- Data interchange services- Database management- Distributed processing- Operating Systems- Networks- Systems software- Computer design, including hardware components, configuration and interface- Cryptographic equipment and systems- Specifications and uses of embedded computers
		0 1 2 3 4	0 1 2 3 4	X	X	X	X		
	<u>Developmental Opportunities:</u> Learning: <ul style="list-style-type: none">- Information Resources Management College, Managing Information Architectures and Infrastructures (all)- Information Resources Management College, Critical Information System Technologies (I, J)	<u>Gap Assessment:</u> _____ - _____ = _____ Required Proficiency - Current Proficiency = Gap <u>Gap Mitigation Strategy:</u>							

Career Area: Computer and Information Systems Engineering**Job Role: Software Engineering**

7	Competency: Requirements Management		Proficiency:		Level:					Skill Topics:
			Current	Required	E	I	J	S	Ex	
Strategic Value: <i>To ensure stakeholder (e.g. customers, end-users) requirements are incorporated in the systems engineering of information systems.</i>	Learning Objectives: Knowledge of and ability to analyze, identify, specify and manage functional and infrastructure requirements needed to achieve customer, organization and DON goals.	0 1 2 3 4	0 1 2 3 4	X	X	X	X			- DoD mission, organization and roles - DoD Components' (Services and Agencies) missions, organizations and roles - Unified Command structure, mission and roles - Mission support requirements - Analysis tools and methods - Stakeholder requirements - Operations and logistics requirements - Security requirements
	Developmental Opportunities: Learning: - Attend course on Requirements Specification (E, I) - Information Resources Management College, Critical Information System Technologies (E, I, J) Work-based: - Work on specification writing team (E, I, J)	Gap Assessment: <div style="text-align: center;"> _____ - _____ = _____ Required Proficiency - Current Proficiency = Gap </div> Gap Mitigation Strategy:								

Career Area: Computer and Information Systems Engineering**Job Role: Software Engineering**

8	Competency: Configuration Management	Proficiency:		Level:					Skill Topics:
<u>Strategic Value:</u> To ensure sound configuration management processes are established for information systems, to document mission support software and systems and to manage the configuration of existing networks.	<u>Learning Objectives:</u> Knowledge of and ability to identify, track (status accounting), control, and document information and physical characteristics of an information system or product (including documentation during a system's life cycle).	Current	Required	E	I	J	S	Ex	<ul style="list-style-type: none">- Status accounting- Product documentation during life cycle- Specification/standard validation- Configuration management methods and tools- Identifying an information system or product- Tracking (status accounting) for an information system or product- Controlling an information system or product- DoD, DON policies and guidelines- Documenting information and physical characteristics of an information system or product- Configuration reviews and functional and physical auditing- Protect software in development from insertion of malicious code
		0 1 2 3 4	0 1 2 3 4	X	X	X	X		
	<u>Developmental Opportunities:</u> Learning: <ul style="list-style-type: none">- Attend formal CM training (E, I)- Attend CM conferences (I, J, S)- Information Resources Management College, Critical Information System Technologies (E, I, J) Work-based: <ul style="list-style-type: none">- Participate in writing of CM plan (I, J)- Participate in a CM audit (I, J)- Serve on a configuration control board (I, J)- Attend a CCB meeting (E)	<u>Gap Assessment:</u> _____ - _____ = _____ Required Proficiency - Current Proficiency = Gap							
		<u>Gap Mitigation Strategy:</u>							

Career Area: Computer and Information Systems Engineering**Job Role: Software Engineering**

9 Competency: System Integration		Proficiency:		Level:					Skill Topics:
		Current	Required	E	I	J	S	Ex	
<u>Strategic Value:</u> To manage the integration of subsystems into a system.	<u>Learning Objectives:</u> Knowledge of and ability to integrate large information systems.	0 1 2 3 4	0 1 2 3 4			X	X	X	- Integration methods, tools and metrics - System interoperability - Software portability - Software scalability - System security - System and interface testing - DoD and DON Enterprise migration strategies
	<u>Developmental Opportunities:</u> Learning: - Information Resources Management College, Critical Information System Technologies (J) - System engineering course (J) - Attend system engineering symposia (J, S) - Present at system engineering symposia (S, Ex) Work-based: - Participate in interface design specification (J) - Participate in integration testing (J) - Management and supervisor training courses (J, S, Ex)	<u>Gap Assessment:</u> _____ - _____ = _____ Required Proficiency - Current Proficiency = Gap							
		<u>Gap Mitigation Strategy:</u>							

Career Area: Computer and Information Systems Engineering**Job Role: Software Engineering**

10	Competency: Standards		Proficiency:		Level:					Skill Topics:
<u>Strategic Value:</u> To promote interoperability, security, portability and scalability by ensuring requirements are inserted into standards development efforts, developing standards profiles and promoting the development of standards compliant products.	<u>Learning Objectives:</u> Knowledge of and ability to develop and maintain standards and to influence standards development and standards development bodies.	Current	Required	E	I	J	S	Ex	<ul style="list-style-type: none">- Standards development process- Standards development bodies- Standards-based open systems architecture- Reference models- Profiles of standards (e.g., DoD Technical Reference Model, Technical Architecture Framework for Information Management, Information Technology Standards Guidance, IEEE Open Systems Reference Model, NIST Applications Portability Profile)- Test & Evaluation- Reference Implementations- Standards compliance- Standards selection	
		0 1 2 3 4	0 1 2 3 4	X	X	X	X	X		
	<u>Developmental Opportunities:</u> Learning: <ul style="list-style-type: none">- Information Resources Management College, Managing Information Architectures and Infrastructures (all)- Information Resources Management College, Critical Information System Technologies (E, I, J)- Attend courses on standards (E, I)- Attend standards symposiums and technical conferences (I, J)- Subscribe to technical journals (E, I, J, S) Work-based: <ul style="list-style-type: none">- Serve on standards committees (J, S, Ex)- Serve on staff positions related to standards (all)	<u>Gap Assessment:</u> _____ - _____ = _____ Required Proficiency - Current Proficiency = Gap								
	<u>Gap Mitigation Strategy:</u>									

Career Area: Computer and Information Systems Engineering**Job Role: Software Engineering**

11	Competency: Testing	Proficiency:	Level:	Skill Topics:	
<u>Strategic Value:</u> To ensure that systems perform in accordance with specified requirements.	<u>Learning Objectives:</u> Knowledge of and ability to design and implement software testing to ensure software meets operational requirements.	Current	Required	E I J S Ex	<div>- System verification and validation</div> <div>- System performance inspection, analysis, simulation, demonstration and testing</div> <div>- Requirements tracking</div> <div>- Analysis and simulation</div> <div>- IV&V</div> <div>- Formal systems specification</div> <div>- Fault tree analysis</div> <div>- Software testing design</div> <div>- Software testing procedures</div>
		0 1 2 3 4	0 1 2 3 4	X X X X	
	<u>Developmental Opportunities:</u> Learning: <div>- Attend testing conferences (I, J, S)</div> <div>- Information Resources Management College, Critical Information System Technologies (E, I, J)</div> Work-based: <div>- Develop test procedures for software development activity (E, I)</div>	<u>Gap Assessment:</u> <div><div></div> - <div></div> = <div></div></div> <div>Required Proficiency - Current Proficiency = Gap</div> <u>Gap Mitigation Strategy:</u>			

Career Area: Computer and Information Systems Engineering**Job Role: Software Engineering**

12	Competency: Life Cycle Management	Proficiency:		Level:					Skill Topics:
		Current	Required	E	I	J	S	Ex	
<u>Strategic Value:</u> To ensure adherence to Federal law and DOD Life Cycle regulations in the acquisition, maintenance, operation and disposal of required hardware, support services and other materials.	<u>Learning Objectives:</u> Knowledge of and ability to acquire required hardware, software, support services and other materials.	0 1 2 3 4	0 1 2 3 4		X	X	X		- Project Planning - AIS Life Cycle Management
	<u>Developmental Opportunities:</u> Learning: - Information Resources Management College, Information Management Planning (all) - Information Resources Management College, Information Technology Acquisition for the CIO (S) - Information Resources Management College, Critical Information System Technologies (I, J)	<u>Gap Assessment:</u> _____ - _____ = _____ Required Proficiency - Current Proficiency = Gap							
		<u>Gap Mitigation Strategy:</u>							

Career Area: Computer and Information Systems Engineering**Job Role: Software Engineering**

13	Competency: Program Management	Proficiency:		Level:					Skill Topics:
<u>Strategic Value:</u> To achieve the needed outcomes of a specific program and related projects by ensuring proper management, performance and administration.	<u>Learning Objectives:</u> Knowledge of the required outcomes, functional and political environments, organizations, activities, and constraints affecting a program. Knowledge of project definition and the ability to: relate required results and costs; lead teams that include members not in one's chain of command; apply systematic thinking to develop action plans; develop approaches to satisfy requirements and resolve issues; and ensure overall project quality. A PM has the knowledge and ability to coordinate the work of assigned staff and other functional experts matrixed to support the task.	Current	Required	E	I	J	S	Ex	- Program strategic planning - Program role in organization/enterprise - Visionary leadership - Performance assessment - Project integration management - Quality management - Risk management - Financial management
		0 1 2 3 4	0 1 2 3 4			X	X	X	
	<u>Developmental Opportunities:</u> Learning: - Information Resources Management College: (J, S) --Information Management Planning --Information Technology Acquisition for the CIO --IT Project Management - STAR Program (all) - DAWIA (all) Work-based: - Serve as Contracting Officer's Representative (J, S) - Serve as project engineer or project manager (J)	<u>Gap Assessment:</u> _____ - _____ = _____ Required Proficiency - Current Proficiency = Gap <u>Gap Mitigation Strategy:</u>							

Career Area: Computer and Information Systems Engineering**Job Role: Software Engineering**

14	Competency: Contracting Officers Representative (COR)		Proficiency:		Level:					Skill Topics:											
			Current	Required	E	I	J	S	Ex												
<u>Strategic Value:</u> <i>To ensure contractor performance and delivery is in compliance with a given contract.</i>			<u>Learning Objectives:</u> Knowledge of and ability to make technical decisions within the scope of the contract/task; serve as the day-to-day point of contact for contractual matters; assess the technical quality of performed work; approve deliverables for acceptance.		0	1	2	3	4	0	1	2	3	4							- Deliverable item review and approval- Contract types (e.g., IDIQ, cost reimbursable, time and materials, firm fixed price) - Cost reporting - Contract rates - Delivery orders - Other direct costs (ODCs) - Contract Line Items (CLINs) - Contract milestones - Life cycle management - Statements of Work (SOW) - Contract options
<u>Developmental Opportunities:</u> Learning: - STAR Program (all) - DAWIA (all)			<u>Gap Assessment:</u> _____ - _____ = _____ Required Proficiency - Current Proficiency = Gap <u>Gap Mitigation Strategy:</u>																		

Career Area: Computer and Information Systems Engineering**Job Role: Software Engineering**

15	Competency: Information Assurance		Proficiency:		Level:					Skill Topics:
			Current	Required	E	I	J	S	Ex	
Strategic Value: <i>To acquire, maintain and ensure the security of information systems in an effective, interoperable, scalable, reliable, integrated and affordable fashion.</i>	Learning Objectives: Knowledge of and ability to apply physical access controls, technical security countermeasures, classification and safeguarding of controlled information and operational & industrial security. Ability to validate that appropriate countermeasures are being integrated correctly into program and to ensure that assurance evidence that demonstrates that the system is secure are produced.	0 1 2 3 4 0 1 2 3 4	X	X	X	X	X		- Information Systems Security - National Level IM/IT Policy - Trusted Systems - Discretionary and Mandatory Access Control - Identification and Authentication - Common criteria, DITSCAP - Assurance Evidence	
	Developmental Opportunities: Learning: - NETg Technical Training Courses (all) Work-based: - Partnering with Industry (all)	Gap Assessment: <div style="text-align: center;"> _____ - _____ = _____ Required Current Proficiency Proficiency Gap </div> Gap Mitigation Strategy:								

Job Role: Systems Administration

Career Area: Computer and Information Systems Engineering**Job Role: Systems Administration**

2	Competency: Network Management	Proficiency:		Level:					Skill Topics:		
<u>Strategic Value:</u> To ensure the operational integrity of networked automated information systems.	<u>Learning Objectives:</u> Knowledge of and ability to apply operational performance monitoring, configuration management, fault detection and isolation, security management, and corrective action on information systems, networks, circuits, and equipment.	Current		Required		E	I	J	S	Ex	<ul style="list-style-type: none">- Operational performance- Configuration management- Fault detection and isolation- Security management- Network management hardware and software- Interface problems in network management software systems- Contingency plans and procedures- Security
		0 1 2 3 4	0 1 2 3 4	X	X	X					
	<u>Developmental Opportunities:</u> Learning: <ul style="list-style-type: none">- Information Resources Management College, Global Enterprise Networking and Telecommunications (all)- Attend university/commercial network operations course (E, I)- Information Resources Management College, Critical Information System Technologies (all) Work-based: <ul style="list-style-type: none">- Work as network administrator for operational session (I, J)- Troubleshoot system fixes (all)	<u>Gap Assessment:</u> _____ - _____ = _____ Required Proficiency - Current Proficiency = Gap <u>Gap Mitigation Strategy:</u>									

Career Area: Computer and Information Systems Engineering**Job Role: Systems Administration**

3	Competency: Computer Systems Architecture	Proficiency:		Level:					Skill Topics:
<u>Strategic Value:</u> To provide secure information systems that are effective, interoperable, scalable, reliable, integrated and affordable.	<u>Learning Objectives:</u> Understanding of computer system components and their functions, including component interfaces and associated services.	Current	Required	E	I	J	S	Ex	<ul style="list-style-type: none">- Computer design- Computer operation- System design, including hardware components and configuration- Data interchange services- Database management- Database design (logical/physical)- Distributed processing- Documentation- Systems software (specific)- Networks- Open systems- Specifications and uses of embedded computers
		0 1 2 3 4	0 1 2 3 4	X	X	X	X		
	<u>Developmental Opportunities:</u> Learning: <ul style="list-style-type: none">- Information Resources Management College, Managing Information Architectures and Infrastructures (all)- Information Resources Management College, Critical Information System Technologies (E, I, J)	<u>Gap Assessment:</u> _____ - _____ = _____ Required Proficiency - Current Proficiency = Gap <u>Gap Mitigation Strategy:</u>							

Career Area: Computer and Information Systems Engineering**Job Role: Systems Administration**

4	Competency: Operational Test & Evaluation (OT&E)	Proficiency:		Level:					Skill Topics:
<u>Strategic Value:</u> <i>To plan, test, and evaluate information systems from an operational viewpoint.</i>	<u>Learning Objectives:</u> Knowledge of and ability to analyze operational and technical characteristics, identify critical operational issues, and define, document, implement, execute and report results.	Current	Required	E	I	J	S	Ex	<ul style="list-style-type: none">- Operational characteristics of computer systems- Technical characteristics of computer systems- Critical operational issues- OT&E programs- System design, prototypes/modeling, test methodologies, metrics and applications- Test results analysis- System documentation- Standards and regulations- Evaluation metrics
		0 1 2 3 4	0 1 2 3 4	X	X	X			
	<u>Developmental Opportunities:</u> Learning: - Information Resources Management College, Critical Information System Technologies (all) Work-based: - Evaluation metrics used at other sites (all) - Troubleshoot system fixes (all)	<u>Gap Assessment:</u> _____ - _____ = _____ Required Current = Gap Proficiency Proficiency <u>Gap Mitigation Strategy:</u>							

Career Area: Computer and Information Systems Engineering**Job Role: Systems Administration**

5	Competency: Business Development	Proficiency:		Level:					Skill Topics:
<u>Strategic Value:</u> To sustain the structure and operations of the organization within projected cost and revenue, and to ensure requirements for planned growth and technology insertion are met with adequate capital investment resources.	<u>Learning Objectives:</u> Knowledge of and ability to apply financial management, cost and revenue projections, business cases, plans, methods, practices, policies and procedures, industry trends and market surveys, justifications, approvals, determinations and findings.	Current	Required	E	I	J	S	Ex	<ul style="list-style-type: none">- Marketing- Customer business requirements- Competitive proposal preparation and presentation- Customer service- Business case analysis- Stakeholder mediation
		0 1 2 3 4	0 1 2 3 4		X	X	X		
	<u>Developmental Opportunities:</u> Learning: - Information Resources Management College, Critical Information System Technologies (E, I, J)	<u>Gap Assessment:</u> _____ - _____ = _____ Required Proficiency - Current Proficiency = Gap <u>Gap Mitigation Strategy:</u>							

Job Role: Systems Administration

6	Competency: Information Assurance	Proficiency:		Level:					Skill Topics:
<u>Strategic Value:</u> To acquire, maintain and ensure the security of information systems in an effective, interoperable, scalable, reliable, integrated and affordable fashion.	<u>Learning Objectives:</u> Knowledge of and ability to apply physical access controls, technical security countermeasures, classification and safeguarding of controlled information and operational & industrial security. Ability to validate that appropriate countermeasures are being integrated correctly into program and to ensure that assurance evidence that demonstrates that the system is secure are produced.	Current	Required	E	I	J	S	Ex	<ul style="list-style-type: none">- Information Systems Security- National Level IM/IT Policy- Trusted Systems- Discretionary and Mandatory Access Control- Identification and Authentication- Common criteria, DITSCAP- Assurance Evidence
		0 1 2 3 4	0 1 2 3 4	X	X	X	X	X	
	<u>Developmental Opportunities:</u> Learning: - NETg Technical Training Courses (all) Work-based: - Partnering with Industry (all)	<u>Gap Assessment:</u> _____ - _____ = _____ Required Proficiency - Current Proficiency = Gap <u>Gap Mitigation Strategy:</u>							

Career Area: Computer and Information Systems Engineering**Job Role: Systems Analysis**

1	Competency: Requirements Analysis	Proficiency:		Level:					Skill Topics:
<u>Strategic Value:</u> To ensure stakeholder (e.g. customers, end-users) requirements are incorporated in the systems engineering of information systems.	<u>Learning Objectives:</u> Knowledge of and ability to identify, specify, analyze and manage stakeholders' functional and infrastructure requirements.	Current	Required	E	I	J	S	Ex	- DoD mission, organization and roles - DoD Components' (Services and Agencies) missions, organizations and roles - Unified Command structure, mission and roles- Mission support requirements - Analysis tools and methods - Stakeholder requirements - Operations and logistics requirements - Security requirements
		0 1 2 3 4	0 1 2 3 4	X	X	X	X		
	<u>Developmental Opportunities:</u> Learning: - Attend course on Requirements Specification (E, I) - Information Resources Management College, Critical Information System Technologies (E, I, J) Work-based: - Work on specification writing team (E, I, J)	<u>Gap Assessment:</u> _____ - _____ = _____ Required Proficiency - Current Proficiency = Gap <u>Gap Mitigation Strategy:</u>							

Career Area: Computer and Information Systems Engineering**Job Role: Systems Analysis**

2	Competency: Modeling and Simulation	Proficiency:		Level:					Skill Topics:
<u>Strategic Value:</u> To evaluate and assess evolving information systems and to ensure greater efficiency, improved service, and cost effective operations.	<u>Learning Objectives:</u> Knowledge of and ability to apply modeling and simulation tools and techniques to characterize systems of interest, to support decisions involving requirements, to evaluate design alternatives, to support training, or to support operational preparation.	Current	Required	E	I	J	S	Ex	- Analytic modeling (includes methods and tools) - Time-step simulation - Event-step simulation - Trace capture/playback - Remote terminal emulation - Database sampling - Test data generators- Protocols for federated models (e.g., DIS, ALSP, HLA)
		0 1 2 3 4	0 1 2 3 4	X	X	X	X		
	<u>Developmental Opportunities:</u> Learning: - Attend M&S conferences (I, J) - Information Resources Management College, Critical Information System Technologies (E, I, J) Work-based: - Visiting other DoD/civilian sites to learn about modeling and simulation (all)	<u>Gap Assessment:</u> _____ - _____ = _____ Required Proficiency - Current Proficiency = Gap <u>Gap Mitigation Strategy:</u>							

Job Role: **Systems Analysis**

3	Competency: Architecture	Proficiency:		Level:					Skill Topics:
<u>Strategic Value:</u> <i>To provide secure information systems that are efficient, effective, interoperable, scalable, reliable, integrated and affordable.</i>	<u>Learning Objectives:</u> Understanding the operational, systems and technical views of the architecture framework endorsed by DoD, and their application in computer and information systems components.	Current	Required	E	I	J	S	Ex	- OMB Memo M-97-16 - C4ISR architecture framework - Process modeling - Data interchange services - Computer systems architecture - System design, including hardware components and configuration - Database management - Distributed processing - Operating Systems- Networks - Systems software - Technical Standards--their role and specific standards in use and adopted by DoD and DON - Cryptographic equipment and systems- DoD Security Architecture (MSL)
		0 1 2 3 4	0 1 2 3 4	X	X	X	X		
	<u>Developmental Opportunities:</u> Learning: - Information Resources Management College, Managing Information Architectures and Infrastructures (all) - Information Resources Management College, Critical Information System Technologies (E, I, J)	<u>Gap Assessment:</u> <div> <div></div> <div>-</div> <div></div> <div>=</div> <div></div> </div> <div> <div>Required Proficiency</div> <div>-</div> <div>Current Proficiency</div> <div>=</div> <div>Gap</div> </div> <u>Gap Mitigation Strategy:</u>							

Career Area: Computer and Information Systems Engineering**Job Role: Systems Analysis**

4	Competency: Human Computer Interface		Proficiency:		Level:					Skill Topics:										
			Current	Required	E	I	J	S	Ex											
<u>Strategic Value:</u> <i>To develop human computer interfaces that are designed for usability with the needs, capabilities, and limitations of the users in mind, and in accordance with the DoD regulations.</i>			<u>Learning Objectives:</u> Knowledge of and ability to apply human factors principles, methods, tools and guidance.		0	1	2	3	4	0	1	2	3	4	X	X	X	X		- Automated systems usability design - Design, operation and maintenance of displays, operator controls, and training programs - Human factors engineering principles - Accessibility - Human subjects experiments
<u>Developmental Opportunities:</u> Learning: - Attend Human Computer Interface conferences (I, J) - Take human factors engineering course (E, I) - Information Resources Management College, Critical Information System Technologies (E, I, J)			<u>Gap Assessment:</u> _____ - _____ = _____ Required Proficiency - Current Proficiency = Gap <u>Gap Mitigation Strategy:</u>																	

Career Area: Computer and Information Systems Engineering**Job Role: Systems Analysis**

5	Competency: Operations Research	Proficiency:					Level:					Skill Topics:					
<u>Strategic Value:</u> To assist customers in information systems assessment, planning, design, modifications, and strategy development.	<u>Learning Objectives:</u> Knowledge of and ability to perform design, trade off and cost benefit analysis, and to evaluate and optimize information systems.	Current					Required					E	I	J	S	Ex	- Modeling methods - Correlation analysis - Analysis of variance - Parameter estimation from statistical samples - Parametric and nonparametric test of significance - Principal component analysis - Monte-Carlo analysis - Analytical hierarchical process - Decision support - Bayesian inferencing - Automated statistical evaluation packages (e.g., SAS, SYSTAT, S-PLUS, SPSS, STATISTICA) - Graphical presentations/visualization- Spread sheet programs (e.g., Excel, 1-2-3) - Sampling theory - Data structures - Scalability - Queuing theory - Constraint satisfaction - Integer programming
	<u>Developmental Opportunities:</u> Learning: - Attend courses in operations research (E, I) - Information Resources Management College, Critical Information System Technologies (E, I, J)	0 1 2 3 4					0 1 2 3 4					X	X	X	X		
		<u>Gap Assessment:</u> _____ - _____ = _____ Required Proficiency - Current Proficiency = Gap <u>Gap Mitigation Strategy:</u>															

Career Area: Computer and Information Systems Engineering**Job Role: Systems Analysis**

6	Competency: Configuration Management	Proficiency:					Level:					Skill Topics:					
<u>Strategic Value:</u> To track and document changes to information systems to ensure system and product characteristics conform to validated standards and standard profiles, and to support systems operations and trouble shooting.	<u>Learning Objectives:</u> Knowledge of and ability to identify, track (status accounting), control, and document information and physical characteristics of an information system or product (including documentation during a system's life cycle).	Current					Required					E	I	J	S	Ex	- Software repository information - Hardware configuration administration - Network management tools - Software and hardware configuration management tools - Information systems software and hardware configuration modifications - Software metrics for status accounting of change management and process control - Configuration management standards, plans and policies - Problem reporting and analysis
		0	1	2	3	4	0	1	2	3	4	X	X	X			
	<u>Developmental Opportunities:</u> Learning: - Attend formal CM training (E, I) - Attend CM conferences (I, J, S) - Information Resources Management College, Critical Information System Technologies (E, I, J) Work-based: - Participate in writing of CM plan (I, J) - Participate in a CM audit (I, J) - Serve on a configuration control board (I, J) - Attend a CCB meeting (E)	<u>Gap Assessment:</u> _____ - _____ = _____ Required Proficiency - Current Proficiency = Gap <u>Gap Mitigation Strategy:</u>															

Career Area: Computer and Information Systems Engineering**Job Role: Systems Analysis**

7	Competency: Computer Aided Software Engineering (CASE)	Proficiency:		Level:					Skill Topics:
<u>Strategic Value:</u> To automate, test and evaluate portions of the software and system development life-cycle in order to ensure sound engineering principles throughout the entire computer system life cycle (e.g., requirements analysis, systems development, reengineering, software development, operational testing, and maintenance).	<u>Learning Objectives:</u> Knowledge of and ability to apply DoD and DON approved automated tools and methodologies for software engineering.	Current	Required	E	I	J	S	Ex	- DoD Integrated CASE tools - CASE methodologies - BPA/BPE/BPR
		0 1 2 3 4	0 1 2 3 4	X	X	X	X		
	<u>Developmental Opportunities:</u> Learning: - Information Resources Management College, Critical Information System Technologies (E, I, J)	<u>Gap Assessment:</u> _____ - _____ = _____ Required Proficiency - Current Proficiency = Gap <u>Gap Mitigation Strategy:</u>							

Career Area: Computer and Information Systems Engineering**Job Role: Systems Analysis**

8	Competency: Business Process Reengineering	Proficiency:		Level:					Skill Topics:
<u>Strategic Value:</u> To ensure the organization's methods and processes support customer requirements, both cost and technical.	<u>Learning Objectives:</u> Knowledge of and ability to apply analytical methods and procedures to review and assess information management processes and procedures to support the development and enhancement of administrative processes, procedures and organizations.	Current	Required	E	I	J	S	Ex	<ul style="list-style-type: none">- Economic analysis principles- Activity-based costing- DoD and DON budget and procurement processes- BPR methodologies, metrics, tools and techniques- Automated information systems for specific computer projects- Plan and budgetary document development to support requirements- Continuous improvement principles
		0 1 2 3 4	0 1 2 3 4		X	X	X	X	
	<u>Developmental Opportunities:</u> Learning: <ul style="list-style-type: none">- DoD BPR Certificate Program (all)- Information Resources Management College: (all)<ul style="list-style-type: none">-- Reengineering Organizational Processes-- Information Measuring Results of Organizational Performance- Information Resources Management College, Critical Information System Technologies (E, I, J)- Attend business process reengineering course (I, J)- Attend creative thinking seminar (I)- Attend BPR conferences (I, J, S) Work-based: <ul style="list-style-type: none">- Participate in BPR team (I, J)- Lead BPR effort (J, S)	<u>Gap Assessment:</u> _____ - _____ = _____ Required Current = Gap Proficiency Proficiency							
		<u>Gap Mitigation Strategy:</u>							

Career Area: Computer and Information Systems Engineering**Job Role: Systems Analysis**

9	Competency: Program Management	Proficiency:					Level:					Skill Topics:					
<u>Strategic Value:</u> To achieve the needed outcomes of a specific program and related projects by ensuring proper management, performance and administration.	<u>Learning Objectives:</u> Knowledge of the required outcomes, functional and political environments, organizations, activities, and constraints affecting a program. Knowledge of project definition and the ability to: relate required results and costs; lead teams that include members not in one's chain of command; apply systematic thinking to develop action plans; develop approaches to satisfy requirements and resolve issues; and ensure overall project quality. A PM has the knowledge and ability to coordinate the work of assigned staff and other functional experts matrixed to support the task.	Current					Required					E	I	J	S	Ex	- Program strategic planning - Program role in organization/enterprise - Visionary leadership - Performance assessment - Project integration management - Quality management - Risk management - Financial management
		0	1	2	3	4	0	1	2	3	4				X	X	
	<u>Developmental Opportunities:</u> Learning: - Information Resources Management College: (J, S) --Information Management Planning --Information Technology Acquisition for the CIO --IT Project Management - STAR Program (all) - DAWIA (all) Work-based:- Serve as Contracting Officer's Representative (J, S) - Serve as project engineer or project manager (J)	<u>Gap Assessment:</u> _____ - _____ = _____ Required - Current = Gap Proficiency Proficiency <u>Gap Mitigation Strategy:</u>															

Career Area: Computer and Information Systems Engineering**Job Role: Systems Analysis**

10	Competency: Contracting Officers Representative (COR)		Proficiency:		Level:					Skill Topics:
			Current	Required	E	I	J	S	Ex	
Strategic Value: <i>To ensure contractor performance and delivery is in compliance with a given contract.</i>	Learning Objectives: Knowledge of and ability to make technical decisions within the scope of the contract/task; serve as the day-to-day point of contact for contractual matters; assess the technical quality of performed work; approve deliverables for acceptance.	0 1 2 3 4	0 1 2 3 4		X	X	X			- Deliverable item review and approval - Contract types (e.g., IDIQ, cost reimbursable, time and materials, firm fixed price) - Cost reporting - Contract rates - Delivery orders - Other direct costs (ODCs) - Contract Line Items (CLINs) - Contract milestones - Life cycle management - Statements of Work (SOW) - Contract options
	Developmental Opportunities: Learning: - STAR Program (all) - DAWIA (all)	Gap Assessment: <div style="display: flex; justify-content: space-between; align-items: center;"> <div>_____</div> <div>-</div> <div>_____</div> <div>=</div> <div>_____</div> </div> <div style="display: flex; justify-content: space-between; align-items: center; margin-top: 10px;"> <div>Required Proficiency</div> <div>-</div> <div>Current Proficiency</div> <div>=</div> <div>Gap</div> </div> Gap Mitigation Strategy:								

Career Area: Computer and Information Systems Engineering**Job Role: Systems Analysis**

11	Competency: Information Assurance	Proficiency:		Level:					Skill Topics:
<u>Strategic Value:</u> To acquire, maintain and ensure the security of information systems in an effective, interoperable, scalable, reliable, integrated and affordable fashion.	<u>Learning Objectives:</u> Knowledge of and ability to apply physical access controls, technical security countermeasures, classification and safeguarding of controlled information and operational & industrial security. Ability to validate that appropriate countermeasures are being integrated correctly into program and to ensure that assurance evidence that demonstrates that the system is secure are produced.	Current	Required	E	I	J	S	Ex	- Information Systems Security - National Level IM/IT Policy - Trusted Systems - Discretionary and Mandatory Access Control - Identification and Authentication - Common criteria, DITSCAP - Assurance Evidence
		0 1 2 3 4	0 1 2 3 4	X	X	X	X	X	
	<u>Developmental Opportunities:</u> Learning: - NETg Technical Training Courses (all) Work-based: - Partnering with Industry (all)	<u>Gap Assessment:</u> _____ - _____ = _____ Required Proficiency - Current Proficiency = Gap <u>Gap Mitigation Strategy:</u>							

Career Area: Computer and Information Systems Engineering**Job Role: Systems Engineering**

1	Competency: Requirements Analysis		Proficiency:		Level:					Skill Topics:
			Current	Required	E	I	J	S	Ex	
Strategic Value: <i>To ensure stakeholder (e.g. customers, end-users) requirements are incorporated in the systems engineering of information systems.</i>	Learning Objectives: Knowledge of and ability to analyze, identify, specify and manage functional and infrastructure requirements needed to achieve customer, organization and DON goals.	0 1 2 3 4	0 1 2 3 4	X	X	X	X			- DoD mission, organization and roles - DoD Components' (Services and Agencies) missions, organizations and roles - Unified Command structure, mission and roles - Mission support requirements - Analysis tools and methods - Stakeholder requirements - Operations and logistics requirements - Security requirements
	Developmental Opportunities: Learning: - Attend course on Requirements Specification (E, I) - Information Resources Management College, Critical Information System Technologies (E, I, J) Work-based: - Work on specification writing team (E, I, J)	Gap Assessment: <div style="display: flex; justify-content: space-between; align-items: center;"> <div>_____</div> <div>-</div> <div>_____</div> <div>=</div> <div>_____</div> </div> <div style="display: flex; justify-content: space-between; align-items: center; margin-top: 10px;"> <div>Required Proficiency</div> <div>-</div> <div>Current Proficiency</div> <div>=</div> <div>Gap</div> </div> Gap Mitigation Strategy:								

Career Area: Computer and Information Systems Engineering**Job Role: Systems Engineering**

2	Competency: Computer Systems Architecture	Proficiency:		Level:					Skill Topics:
<u>Strategic Value:</u> <i>To provide secure information systems that are effective, interoperable, scalable, reliable, integrated and affordable.</i>	<u>Learning Objectives:</u> Understanding of computer system components and their functions, including component interfaces and associated services.	Current	Required	E	I	J	S	Ex	<ul style="list-style-type: none">- Computer systems architecture- Interfaces- Computer system design including hardware components, configuration and interfaces- Operating systems- Systems software- Data interchange services- Distributed processing- Networks- Computer operation- Database management- Distributed processing- DoD Security Architecture (MSL)- Specifications and uses of embedded computers
		0 1 2 3 4	0 1 2 3 4	X	X	X	X		
	<u>Developmental Opportunities:</u> Learning: <ul style="list-style-type: none">- Information Resources Management College, Managing Information Architectures and Infrastructures (all)- Information Resources Management College, Critical Information System Technologies (I, J)	<u>Gap Assessment:</u> _____ - _____ = _____ Required Proficiency - Current Proficiency = Gap <u>Gap Mitigation Strategy:</u>							

Career Area: Computer and Information Systems Engineering**Job Role: Systems Engineering**

3 Competency: System Integration		Proficiency:		Level:					Skill Topics:
Strategic Value:	Learning Objectives:	Current	Required	E	I	J	S	Ex	
		0 1 2 3 4	0 1 2 3 4						
<i>To manage the integration of subsystems into a system.</i>	Knowledge of and ability to integrate large information systems.					X	X	X	- Integration methods, tools and metrics - System interoperability - Software portability - Software scalability - System security - System and interface testing - DoD and DON Enterprise migration strategies - Analysis, identification and resolution of flaws - Interface definition - Interface configuration management
	<u>Developmental Opportunities:</u> Learning: - Information Resources Management College, Critical Information System Technologies (J) - University/commercial system engineering courses (I) - Attend system engineering symposia (I, J, S) - Present at system engineering symposia (J, S) Work-based: - Participate in interface design specification (I) - Participate in integration testing (I) - Management and supervisor training courses (J, S, Ex)	<u>Gap Assessment:</u> _____ - _____ = _____ Required Proficiency - Current Proficiency = Gap							
		<u>Gap Mitigation Strategy:</u>							

Career Area: Computer and Information Systems Engineering**Job Role: Systems Engineering**

4	Competency: Software Development	Proficiency:	Level:	Skill Topics:
<u>Strategic Value:</u> <i>To develop software, including software that must satisfy critical requirements, and to ensure that sound software development practices are in place for information systems, engineering programs, or projects.</i>	<u>Learning Objectives:</u> Knowledge of and ability to apply traditional and emerging design methodologies and programming services for developing software products and systems, including assurance products that demonstrate that critical properties have been satisfied.	Current 0 1 2 3 4	Required 0 1 2 3 4	E I J S Ex X X X X
	<u>Developmental Opportunities:</u> Learning: - Classes on programming languages (E, I, J) - Classes in Software engineering (E, I, J) - Class in capability maturity model (E, I, J) - Information Resources Management College, Critical Information System Technologies (E, I, J) Work-based: - Participate in in-house software development project (E, I) - Lead in house software development team (J)	<u>Gap Assessment:</u> <div> <div></div> <div>-</div> <div></div> <div>=</div> <div></div> </div> <div> <div>Required Proficiency</div> <div>-</div> <div>Current Proficiency</div> <div>=</div> <div>Gap</div> </div> <u>Gap Mitigation Strategy:</u>		- Software development life cycle phases - Traditional and emerging design methodologies for software production and system development - DoD policies and guidelines - Information engineering - Database architecture and software - Network architecture and software - Open systems and software standards - Object oriented design methodologies - Operating systems - Programming languages and coding - Software testing and quality assurance - Business Process Engineering (BPE) and Reengineering (BPR) - Software systems engineering - Applications configuration management - SEI Capability Maturity Model - Common criteria, DITSCAP - Formal specifications, theorem provers, etc.

Career Area: Computer and Information Systems Engineering**Job Role: Systems Engineering**

5	Competency: Software Reuse	Proficiency:					Level:					Skill Topics:					
<u>Strategic Value:</u> To locate, assess and reutilize software components and to determine effectiveness of generalizing existing applications for wider use. To develop software and software architectures that are reusable.	<u>Learning Objectives:</u> Knowledge of and ability to reuse software components across multiple applications. Knowledge of and ability to use software standards, architectures, and software engineering methodologies that produce reusable software.	Current					Required					E	I	J	S	Ex	- Software reuse - Defense Software Repository System - Information systems engineering - Domain engineering - Government and commercial reuse repositories - Software components - Application systems - Interface services - DoD, Federal Government and DON policies, guidelines and practices governing software reuse - Asset management - Quality assurance - Reusable assets (e.g., process models, architectures, guidelines, code, data) - Software repositories - Case based reasoning - Indexing methods for selecting software (libraries)
	<u>Developmental Opportunities:</u> Learning: - Attend re-use briefings at software engineering conferences (E, I) - Information Resources Management College, Critical Information System Technologies (E, I, J) Work-based: - Browse through existing software repositories (E, I) - identify possible reusable components within existing software (I)	<u>Gap Assessment:</u> _____ - _____ = _____ Required Proficiency - Current Proficiency = Gap <u>Gap Mitigation Strategy:</u>															

Career Area: Computer and Information Systems Engineering**Job Role: Systems Engineering**

6	Competency: Computer Aided Software Engineering (CASE)	Proficiency:		Level:					Skill Topics:
<u>Strategic Value:</u> To ensure sound engineering principles are followed and security is incorporated throughout the software/computer system life cycle (e.g., requirements analysis, systems development, reengineering, software development, operational testing, and maintenance).	<u>Learning Objectives:</u> Knowledge of and ability to apply DoD and DON approved automated tools and methodologies for software engineering.	Current	Required	E	I	J	S	Ex	<div>- DoD Integrated CASE tools</div> <div>- CASE methodologies</div> <div>- BPA/BPE/BPR</div> <div>- Automated testing</div> <div>- Software and system development life cycle</div> <div>- Requirements analysis</div> <div>- Systems development</div> <div>- Reengineering</div>
		0 1 2 3 4	0 1 2 3 4	X	X	X	X		
	<u>Developmental Opportunities:</u> Learning: - Information Resources Management College, Critical Information System Technologies (E, I, J)	<u>Gap Assessment:</u> _____ - _____ = _____ Required Proficiency - Current Proficiency = Gap <u>Gap Mitigation Strategy:</u> 							

Career Area: Computer and Information Systems Engineering**Job Role: Systems Engineering**

7	Competency: Human Computer Interface	Proficiency:	Level:	Skill Topics:
<u>Strategic Value:</u> <i>To provide guidance to system developers in areas such as design, operation and maintenance of displays, operator controls and training programs. To ensure human computer interfaces are designed for usability with the needs, capabilities, and limitations of the users in mind and in accordance with DoD regulations.</i>	<u>Learning Objectives:</u> Knowledge of and ability to apply human factors principles, methods, tools and guidance.	Current	Required	E I J S Ex
	<u>Developmental Opportunities:</u> Learning: - Attend Human Computer Interface conferences (I, J) - Take human factors engineering course (E, I) - Information Resources Management College, Critical Information System Technologies (E, I, J)	0 1 2 3 4	0 1 2 3 4	X X X X
		Required Proficiency	Current Proficiency	= Gap

- Human factors principles, methods and tools
- Human-machine systems (human-in-the-loop)
- Human factors engineering
- Design, operation and maintenance of displays, operator controls, and training programs
- Ergonomics
- Safety
- Federal and DoD human-computer interface regulations and guidelines
- Human factors engineering principles
- Human subjects experiments
- Accessibility

Gap Assessment:

_____ - _____ = _____

Required Proficiency - Current Proficiency = Gap

Gap Mitigation Strategy:

Career Area: Computer and Information Systems Engineering**Job Role: Systems Engineering**

8	Competency: Common Operating Environment	Proficiency:	Level:	Skill Topics:
<u>Strategic Value:</u> <i>To enable the continued development of applications that run on the Defense Information Infrastructure Common Operating Environment (DII COE), to promote standard interfaces and to promote interoperability.</i>	<u>Learning Objectives:</u> Knowledge of and ability to apply a theoretical and practical understanding of the Joint Technical Architecture and the Common Operating Environment.	Current 0 1 2 3 4	Required 0 1 2 3 4	E I J S Ex X X X
	<u>Developmental Opportunities:</u> Learning: - Information Resources Management College, Managing Information Architectures and Infrastructures (all) - Information Resources Management College, Critical Information System Technologies (I, J) - Defense Information Systems Agency courses on DII COE (all) Work-based: - Develop COE compliant segments (all)	<u>Gap Assessment:</u> _____ - _____ = _____ Required Proficiency - Current Proficiency = Gap <u>Gap Mitigation Strategy:</u>		- Systems architectures (network, hardware, software, communications systems, distributes computing, client/server architectures) - Software Engineering (software development and principles, tools and environments, software test and integration, software languages and metrics) - Applications engineering (web applications design, requirements, traceability, software component reuse, performance engineering, system performance measures, software test & integration, software systems migration, software configuration management/change control, real time systems, human-machine interfaces) - Data engineering (data structures, database management systems, database administration, data warehousing, middleware) - Information assurance (network security, firewalls, boundary controllers, intrusion detection and response, access control, security management, systems certification) - Other IT skills (OSs, systems interoperability and COE compliance, open systems standards, object oriented technology, multimedia, groupware technology, large scale systems)

Career Area: Computer and Information Systems Engineering**Job Role: Systems Engineering**

9	Competency: Network Engineering	Proficiency:		Level:					Skill Topics:
<u>Strategic Value:</u> To create greater capacity, improved service, increased security and more cost effective operations; to provide detailed engineering needed to bring a modern, secure communications architecture to operational networks that can carry voice, video and/or imagery.	<u>Learning Objectives:</u> Knowledge of and ability to design and redesign networks, implement and provide operational support for communications protocols and nodes (e.g., routers, voice switches, ATM) for combined voice, data and imagery.	Current	Required	E	I	J	S	Ex	<ul style="list-style-type: none">- Network design- Local Area Networks (LANs) and Wide Area Networks (WANs)- Transmission networks- Network communication and security protocols- Client-server relationships- Contingency, availability, and reliability issues- Stand-alone hardware/software applications integration to LAN/WAN based applications- Modeling and simulation techniques and tools- Network directory services- Voice, data, imagery, multimedia and/or video applications and systems- Digital and analog switches- Multiplexers, routers, gateways, servers- Circuit and packet switched communications and architectures- Operational networks- Message switched networks- Cryptographic equipment
	<u>Developmental Opportunities:</u> Learning: <ul style="list-style-type: none">- Information Resources Management College, Critical Information System Technologies (E, I, J)- Information Resources Management College, Global Enterprise Networking and Telecommunications (all)	<u>Gap Assessment:</u> _____ - _____ = _____ Required Proficiency - Current Proficiency = Gap <u>Gap Mitigation Strategy:</u>							

Career Area: Computer and Information Systems Engineering**Job Role: Systems Engineering**

10	Competency: Integrated Network Management	Proficiency:		Level:					Skill Topics:
<u>Strategic Value:</u> To provide network management systems to support the operation, administration and maintenance of voice, data, imagery and video networks.	<u>Learning Objectives:</u> Knowledge of and ability to apply methods/tools to carry out operational performance monitoring, configuration management, fault detection and isolation, security management and corrective action on systems, networks, circuits and equipment.	Current	Required	E	I	J	S	Ex	- Operational performance monitoring - Configuration management - Fault detection and isolation - Security management - Corrective action - Telecommunications systems - Networks, circuits and equipment
		0 1 2 3 4	0 1 2 3 4	X	X	X			
	<u>Developmental Opportunities:</u> Learning: - Information Resources Management College, Global Enterprise Networking and Telecommunications (all) - Information Resources Management College, Critical Information System Technologies (all) - Attend university/commercial network operations course (E, I) Work-based: - Work as network administrator for operational session (I, J)	<u>Gap Assessment:</u> _____ - _____ = _____ Required Proficiency - Current Proficiency = Gap <u>Gap Mitigation Strategy:</u>							

Career Area: Computer and Information Systems Engineering**Job Role: Systems Engineering**

11	Competency: Operational Test & Evaluation (OT&E)	Proficiency:					Level:					Skill Topics:					
<u>Strategic Value:</u> To plan, test and evaluate for the implementation of an information system from an operational viewpoint.	<u>Learning Objectives:</u> Knowledge of and ability to analyze operational and technical characteristics, identify critical operational issues, and define, document, implement, execute and report results.	Current					Required					E	I	J	S	Ex	<ul style="list-style-type: none">- OT&E methods and tools- Technical performance processes- Operational characteristics analysis- Technical characteristics analysis, identification and definition- Critical operational issues identification- Test and Evaluation Master Plan (TEMP)- Evaluation metrics
		0	1	2	3	4	0	1	2	3	4	X	X	X	X		
	<u>Developmental Opportunities:</u> Learning: <ul style="list-style-type: none">- Attend testing conferences (I, J)- Attend courses on test design (E, I)- Information Resources Management College, Critical Information System Technologies (E, I, J) Work-based: <ul style="list-style-type: none">- Evaluation metrics used at other sites (all)	<u>Gap Assessment:</u> _____ - _____ = _____ Required Proficiency - Current Proficiency = Gap <u>Gap Mitigation Strategy:</u>															

Career Area: Computer and Information Systems Engineering**Job Role: Systems Engineering**

12	Competency: Integrated Verification & Validation (IV&V)	Proficiency:		Level:					Skill Topics:						
<u>Strategic Value:</u> To ensure that systems perform in accordance with specified requirements.	<u>Learning Objectives:</u> Knowledge of and ability to formally verify and validate by means of inspection, analysis, simulation, demonstration and testing.	Current		Required		E	I	J	S	Ex	- System verification and validation - System performance inspection, analysis, simulation, demonstration and testing - Requirements tracking - Analysis and simulation - IV&V - Formal systems specification - Fault tree analysis				
		0	1	2	3	4	0	1	2	3		4	X	X	X
	<u>Developmental Opportunities:</u> Learning: - Attend testing conferences (I, J, S) - Information Resources Management College, Critical Information System Technologies (E, I, J) Work-based: - Participate in IV&V testing (E, I)	<u>Gap Assessment:</u> _____ - _____ = _____ Required Proficiency - Current Proficiency = Gap <u>Gap Mitigation Strategy:</u>													

Career Area: Computer and Information Systems Engineering**Job Role: Systems Engineering**

13	Competency: Reliability	Proficiency:		Level:					Skill Topics:
<u>Strategic Value:</u> To design, develop, and/or acquire systems that meet customers reliability needs.	<u>Learning Objectives:</u> Knowledge of and ability to define reliability requirements, implement to meet requirements, test compliance, and address reliability failures.	Current	Required	E	I	J	S	Ex	- Knowledge of operational systems reliability requirements - Ability to calculate mean time between failures - Knowledge of reliability, maintainability and availability fundamentals
		0 1 2 3 4	0 1 2 3 4	X	X	X	X		
	<u>Developmental Opportunities:</u> Learning: - Information Resources Management College, Critical Information System Technologies (E, I, J) Work-based: - Work in-service support to develop appreciation of impact reliability failures have (E) - Participate in reliability testing (E, I)	<u>Gap Assessment:</u> _____ - _____ = _____ Required Proficiency - Current Proficiency = Gap <u>Gap Mitigation Strategy:</u>							

Career Area: Computer and Information Systems Engineering**Job Role: Systems Engineering**

14	Competency: Configuration Management	Proficiency:		Level:					Skill Topics:
<u>Strategic Value:</u> To ensure sound configuration management processes are established for information systems, to document mission support software and systems, and to manage the configuration of existing networks.	<u>Learning Objectives:</u> Knowledge of and ability to identify, track (status accounting), control, and document information and physical characteristics of an information system or product (including documentation during a system's life cycle).	Current	Required	E	I	J	S	Ex	<ul style="list-style-type: none">- Status accounting- Product documentation during life cycle- Specification/standard validation- Configuration management methods and tools- Identifying an information system or product- Tracking (status accounting) for an information system or product- Controlling an information system or product- DoD, DON policies and guidelines- Documenting information and physical characteristics of an information system or product- Configuration reviews and functional and physical auditing- Protect software in development from insertion of malicious code
		0 1 2 3 4	0 1 2 3 4	X	X	X			
	<u>Developmental Opportunities:</u> Learning: <ul style="list-style-type: none">- Attend formal CM training (E, I)- Attend CM conferences (I, J, S)- Information Resources Management College, Critical Information System Technologies (all) Work-based: <ul style="list-style-type: none">- Participate in writing of CM plan (I, J)- Participate in a CM audit (I, J)- Serve on a configuration control board (I, J)- Attend a CCB meeting (E)	<u>Gap Assessment:</u> _____ - _____ = _____ Required Proficiency - Current Proficiency = Gap <u>Gap Mitigation Strategy:</u>							

Career Area: Computer and Information Systems Engineering**Job Role: Systems Engineering**

15	Competency: Operations Research	Proficiency:					Level:					Skill Topics:					
<u>Strategic Value:</u> To assist customers in information systems assessment, planning, design, modifications, and strategy development.	<u>Learning Objectives:</u> Knowledge of and ability to perform design, trade off and cost benefit analysis, and to evaluate and optimize information systems.	Current					Required					E	I	J	S	Ex	<ul style="list-style-type: none">- Modeling methods- Correlation analysis- Analysis of variance- Parameter estimation from statistical samples- Parametric and nonparametric test of significance- Principal component analysis- Monte-Carlo analysis- Analytical hierarchical process- Decision support- Bayesian inferencing- Automated statistical evaluation packages (e.g., SAS, SYSTAT, S-PLUS, SPSS, STATISTICA)- Graphical presentations/visualization- Spread sheet programs (e.g., Excel, 1-2-3)- Sampling theory- Constraint Satisfaction- Integer Programming
		0	1	2	3	4	0	1	2	3	4	X	X	X	X		
	<u>Developmental Opportunities:</u> Learning: <ul style="list-style-type: none">- Attend courses in operations research (E, I)- Information Resources Management College, Critical Information System Technologies (E, I, J)	<u>Gap Assessment:</u> _____ - _____ = _____ Required Proficiency - Current Proficiency = Gap															
		<u>Gap Mitigation Strategy:</u>															

Career Area: Computer and Information Systems Engineering**Job Role: Systems Engineering**

16	Competency: Program Management	Proficiency:					Level:					Skill Topics:					
<u>Strategic Value:</u> To achieve the needed outcomes of a specific program and related projects by ensuring proper management, performance and administration.	<u>Learning Objectives:</u> Knowledge of the required outcomes, functional and political environments, organizations, activities, and constraints affecting a program. Knowledge of project definition and the ability to: relate required results and costs; lead teams that include members not in one's chain of command; apply systematic thinking to develop action plans; develop approaches to satisfy requirements and resolve issues; and ensure overall project quality. A PM has the knowledge and ability to coordinate the work of assigned staff and other functional experts matrixed to support the task.	Current					Required					E	I	J	S	Ex	- Program strategic planning - Program role in organization/enterprise - Visionary leadership - Performance assessment - Project integration management - Quality management - Risk management - Financial management
		0	1	2	3	4	0	1	2	3	4				X	X	
	<u>Developmental Opportunities:</u> Learning: - Information Resources Management College: (J, S) --Information Management Planning --Information Technology Acquisition for the CIO --IT Project Management - STAR Program (all) - DAWIA (all) Work-based: - Serve as Contracting Officer's Representative (J, S) - Serve as project engineer or project manager (J)	<u>Gap Assessment:</u> _____ - _____ = _____ Required Proficiency - Current Proficiency = Gap <u>Gap Mitigation Strategy:</u>															

Career Area: Computer and Information Systems Engineering**Job Role: Systems Engineering**

17	Competency: Contracting Officers Representative (COR)		Proficiency:		Level:					Skill Topics:
			Current	Required	E	I	J	S	Ex	
<u>Strategic Value:</u> <i>To ensure contractor performance and delivery is in compliance with a given contract.</i>	<u>Learning Objectives:</u> Knowledge of and ability to make technical decisions within the scope of the contract/task; serve as the day-to-day point of contact for contractual matters; assess the technical quality of performed work; approve deliverables for acceptance.		0 1 2 3 4	0 1 2 3 4		X	X	X		- Deliverable item review and approval - Contract types (e.g., IDIQ, cost reimbursable, time and materials, firm fixed price) - Cost reporting - Contract rates - Delivery orders - Other direct costs (ODCs) - Contract Line Items (CLINs) - Contract milestones - Life cycle management - Statements of Work (SOW) - Contract options
	<u>Developmental Opportunities:</u> Learning: - STAR Program (all) - DAWIA (all)	<u>Gap Assessment:</u> <div style="text-align: center;"> _____ - _____ = _____ Required Proficiency - Current Proficiency = Gap </div> <u>Gap Mitigation Strategy:</u>								

Career Area: Computer and Information Systems Engineering**Job Role: Systems Engineering**

18	Competency: Information Assurance	Proficiency:		Level:					Skill Topics:
<u>Strategic Value:</u> To acquire, maintain and ensure the security of information systems in an effective, interoperable, scalable, reliable, integrated and affordable fashion.	<u>Learning Objectives:</u> Knowledge of and ability to apply physical access controls, technical security countermeasures, classification and safeguarding of controlled information and operational & industrial security. Ability to validate that appropriate countermeasures are being integrated correctly into program and to ensure that assurance evidence that demonstrates that the system is secure are produced.	Current	Required	E	I	J	S	Ex	- Information Systems Security - National Level IM/IT Policy - Trusted Systems - Discretionary and Mandatory Access Control - Identification and Authentication - Common criteria, DITSCAP - Assurance Evidence
		0 1 2 3 4	0 1 2 3 4	X	X	X	X	X	
	<u>Developmental Opportunities:</u> Learning: - NETg Technical Training Courses (all) Work-based: - Partnering with Industry (all)	<u>Gap Assessment:</u> _____ - _____ = _____ Required Proficiency - Current Proficiency = Gap <u>Gap Mitigation Strategy:</u>							

Career Area: Computer and Information Systems Engineering**Job Role: Test and Evaluation**

1	Competency: Developmental Test & Evaluation (DT&E)	Proficiency:		Level:					Skill Topics:
<u>Strategic Value:</u> To promote the development and acceptance of information systems to meet stakeholder requirements; to promote compliance with standards; to promote interoperability of standards compliant products in support of DON acquisition.	<u>Learning Objectives:</u> Knowledge of and ability to analyze the technical characteristics, identify critical technical issues and design, implement, execute and report results.	Current	Required	E	I	J	S	Ex	<div>- DT&E</div> <div>- Requirements and developmental analysis</div> <div>- Test coverage performance metrics</div> <div>- Quality assurance</div> <div>- Performance assurance</div> <div>- Product assurance</div> <div>- Standards conformance testing</div> <div>- Interoperability certification</div> <div>- Security testing</div> <div>- Human computer interface</div>
		0 1 2 3 4	0 1 2 3 4	X	X	X	X		
	<u>Developmental Opportunities:</u> Learning: <div>- Attend testing conferences, such as ITEA conference (I, J)</div> <div>- Attend courses on test design (E, I)</div> <div>- Information Resources Management College, Critical Information System Technologies (E, I, J)</div>	<u>Gap Assessment:</u> <div><div></div> - <div></div> = <div></div></div> <div>Required Proficiency - Current Proficiency = Gap</div> <u>Gap Mitigation Strategy:</u>							

Career Area: Computer and Information Systems Engineering**Job Role: Test and Evaluation**

2	Competency: Integrated Verification & Validation (IV&V)	Proficiency:		Level:					Skill Topics:
<u>Strategic Value:</u> To ensure that systems perform in accordance with specified requirements.	<u>Learning Objectives:</u> Knowledge of and ability to formally verify and validate by means of inspection, analysis, simulation, demonstration and testing.	Current	Required	E	I	J	S	Ex	<ul style="list-style-type: none">- Automated system performance characteristics- System inspection, analysis, simulation, demonstration and testing- IV&V tools and techniques- Formal systems specification- Fault tree analysis
		0 1 2 3 4	0 1 2 3 4	X	X	X	X		
	<u>Developmental Opportunities:</u> Learning: <ul style="list-style-type: none">- Attend testing conferences (I, J, S)- Information Resources Management College, Critical Information System Technologies (E, I, J) Work-based: <ul style="list-style-type: none">- Participate in IV&V testing (E, I)	<u>Gap Assessment:</u> _____ - _____ = _____ Required Proficiency - Current Proficiency = Gap <u>Gap Mitigation Strategy:</u>							

Career Area: Computer and Information Systems Engineering**Job Role: Test and Evaluation**

3	Competency: Integration Testing		Proficiency:		Level:					Skill Topics:
			Current	Required	E	I	J	S	Ex	
Strategic Value: <i>To achieve/test an integrated and interoperable system.</i>	Learning Objectives: Knowledge of and ability to test and ensure that multiple functional and technical components and modules have been integrated in an interoperable fashion.	0 1 2 3 4	0 1 2 3 4	X	X	X				- Functional and technical component and module integration - Interface problems in information system networks - Integrated system testing
	Developmental Opportunities: Learning: - Information Resources Management College, Critical Information System Technologies (all) Work-based: - Participate in system integration testing (E, I) - Act as test leader for integration testing (J)	Gap Assessment: <div style="display: flex; justify-content: space-between; align-items: center;"> <div>_____</div> <div>-</div> <div>_____</div> <div>=</div> <div>_____</div> </div> <div style="display: flex; justify-content: space-between; align-items: center; margin-top: 10px;"> <div>Required Proficiency</div> <div>-</div> <div>Current Proficiency</div> <div>=</div> <div>Gap</div> </div> Gap Mitigation Strategy: 								

Career Area: Computer and Information Systems Engineering**Job Role: Test and Evaluation**

4	Competency: Operational Test & Evaluation (OT&E)		Proficiency:		Level:					Skill Topics:
			Current	Required	E	I	J	S	Ex	
Strategic Value: <i>To plan, test and evaluate for the implementation of an information system from an operational viewpoint.</i>	Learning Objectives: Knowledge of and ability to analyze operational and technical characteristics, identify critical operational issues, and define, document, implement, execute and report results.	0 1 2 3 4 0 1 2 3 4	X	X	X	X				- OT&E methods and tools - Technical performance processes - Operational characteristics analysis - Technical characteristics analysis, identification and definition - Critical operational issues identification - Test and Evaluation Master Plan (TEMP) - Evaluation metrics
	Developmental Opportunities: Learning: - Attend testing conferences, such as ITEA conference (I, J) - Attend courses on test design (E, I) - Information Resources Management College, Critical Information System Technologies (E, I, J) Work-based: - Evaluation metrics used at other sites (all)	Gap Assessment: <div style="text-align: center;"> _____ - _____ = _____ Required Current Proficiency Proficiency Gap </div> Gap Mitigation Strategy:								

Career Area: Computer and Information Systems Engineering**Job Role: Test and Evaluation**

5	Competency: Quality Assurance		Proficiency:		Level:					Skill Topics:
<u>Strategic Value:</u> To design, develop and deploy high quality systems by employing tools and methods that manage the system evolution.	<u>Learning Objectives:</u> Knowledge of and ability to apply principles, methods and tools of quality assurance; includes translating functional requirements into technical requirements used for logical design or presenting alternative technologies or approaches.	Current	Required	E	I	J	S	Ex	- Stakeholder requirements - Testing processes and procedures - OT&E - DT&E - IV&V - Performance measurement - Software metrics - Design reviews	
		0 1 2 3 4	0 1 2 3 4	X	X	X	X			
	<u>Developmental Opportunities:</u> Learning: - Center for Quality Management courses (all) - Information Resources Management College, Critical Information System Technologies (E, I, J)	<u>Gap Assessment:</u> _____ - _____ = _____ Required Proficiency - Current Proficiency = Gap <u>Gap Mitigation Strategy:</u>								

Career Area: Computer and Information Systems Engineering**Job Role: Test and Evaluation**

6	Competency: Testing		Proficiency:		Level:					Skill Topics:
<u>Strategic Value:</u> To ensure that systems perform in accordance with specified requirements.	<u>Learning Objectives:</u> Knowledge of and ability to design and implement software testing to ensure software meets operational requirements.	Current	Required	E	I	J	S	Ex	<ul style="list-style-type: none">- System verification and validation- System performance inspection, analysis, simulation, demonstration and testing- Requirements tracking- Analysis and simulation- IV&V- Formal systems specification- Fault tree analysis- Software testing design- Software testing procedures	
		0 1 2 3 4	0 1 2 3 4	X	X	X	X			
	<u>Developmental Opportunities:</u> Learning: <ul style="list-style-type: none">- Attend testing conferences (I, J, S)- Information Resources Management College, Critical Information System Technologies (E, I, J) Work-based: <ul style="list-style-type: none">- Develop test procedures for software development activity (E, I)	<u>Gap Assessment:</u> _____ - _____ = _____ Required Proficiency - Current Proficiency = Gap								
		<u>Gap Mitigation Strategy:</u>								

Career Area: Computer and Information Systems Engineering**Job Role: Test and Evaluation**

7	Competency: Reliability		Proficiency:		Level:					Skill Topics:
			Current	Required	E	I	J	S	Ex	
Strategic Value: <i>To design, develop, and/or acquire systems that meet customers reliability needs.</i>	Learning Objectives: Knowledge of and ability to define reliability requirements, implement to meet requirements, test compliance, and address reliability failures.		0 1 2 3 4	0 1 2 3 4	X	X	X	X		- Knowledge of operational systems reliability requirements - Ability to calculate mean time between failures - Knowledge of reliability, maintainability and availability fundamentals
	Developmental Opportunities: Learning: - Information Resources Management College, Critical Information System Technologies (E, I, J) Work-based: - Work in-service support to develop appreciation of impact reliability failures have (E) - Participate in reliability testing (E, I)		Gap Assessment: _____ - _____ = _____ Required Proficiency - Current Proficiency = Gap Gap Mitigation Strategy:							

Job Role: Test and Evaluation

Strategic Value:

To ensure sound engineering principles are followed and security is incorporated throughout the software/computer system life cycle (e.g., requirements analysis, systems development, reengineering, software development, operational testing, and maintenance).

Knowledge of and ability to apply DoD and DON approved automated tools and methodologies for software engineering.

Learning:
- Information Resources Management College, Critical Information System Technologies (E, I, J)

Current

E I J S E

- DoD Integrated CASE tools
- CASE methodologies
- BPA/BPE/BPR
- Automated testing
- Software and system development life cycle
- Requirements analysis
- Systems development
- Reengineering
- Human computer interface

Required Proficiency	-	Current Proficiency	=	Gap
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Gap Mitigation Strategy:

Career Area: Computer and Information Systems Engineering**Job Role: Test and Evaluation**

9	Competency: Program Management	Proficiency:		Level:					Skill Topics:
		Current	Required	E	I	J	S	Ex	
<u>Strategic Value:</u> <i>To achieve the needed outcomes of a specific program and related projects by ensuring proper management, performance and administration.</i>	<u>Learning Objectives:</u> Knowledge of the required outcomes, functional and political environments, organizations, activities, and constraints affecting a program. Knowledge of project definition and the ability to: relate required results and costs; lead teams that include members not in one's chain of command; apply systematic thinking to develop action plans; develop approaches to satisfy requirements and resolve issues; and ensure overall project quality. A PM has the knowledge and ability to coordinate the work of assigned staff and other functional experts matrixed to support the task.	0 1 2 3 4	0 1 2 3 4			X	X	X	- Program strategic planning - Program role in organization/enterprise - Visionary leadership - Performance assessment - Project integration management - Quality management - Risk management - Financial management
	<u>Developmental Opportunities:</u> Learning: - Information Resources Management College: (J, S) --Information Management Planning --Information Technology Acquisition for the CIO --IT Project Management - STAR Program (all) - DAWIA (all) Work-based: - Serve as Contracting Officer's Representative (J, S) - Serve as project engineer or project manager (J)	<u>Gap Assessment:</u> <div style="text-align: center;"> _____ - _____ = _____ Required Current Proficiency Proficiency Gap </div> <u>Gap Mitigation Strategy:</u>							

Career Area: Computer and Information Systems Engineering**Job Role: Test and Evaluation**

10	Competency: Contracting Officers Representative (COR)		Proficiency:		Level:					Skill Topics:										
			Current	Required	E	I	J	S	Ex											
<u>Strategic Value:</u> To ensure contractor performance and delivery is in compliance with a given contract.			<u>Learning Objectives:</u> Knowledge of and ability to make technical decisions within the scope of the contract/task; serve as the day-to-day point of contact for contractual matters; assess the technical quality of performed work; approve deliverables for acceptance.		0	1	2	3	4	0	1	2	3	4		X	X	X		- Deliverable item review and approval - Contract types (e.g., IDIQ, cost reimbursable, time and materials, firm fixed price) - Cost reporting - Contract rates - Delivery orders - Other direct costs (ODCs) - Contract Line Items (CLINs) - Contract milestones - Life cycle management - Statements of Work (SOW) - Contract options
<u>Developmental Opportunities:</u> Learning: - STAR Program (all) - DAWIA (all)			<u>Gap Assessment:</u> _____ - _____ = _____ Required Proficiency - Current Proficiency = Gap <u>Gap Mitigation Strategy:</u>																	

Career Area: Computer and Information Systems Engineering**Job Role: Test and Evaluation**

11	Competency: Information Assurance	Proficiency:		Level:					Skill Topics:
<u>Strategic Value:</u> To acquire, maintain and ensure the security of information systems in an effective, interoperable, scalable, reliable, integrated and affordable fashion.	<u>Learning Objectives:</u> Knowledge of and ability to apply physical access controls, technical security countermeasures, classification and safeguarding of controlled information and operational & industrial security. Ability to validate that appropriate countermeasures are being integrated correctly into program and to ensure that assurance evidence that demonstrates that the system is secure are produced.	Current	Required	E	I	J	S	Ex	<ul style="list-style-type: none">- Information Systems Security- National Level IM/IT Policy- Trusted Systems- Discretionary and Mandatory Access Control- Identification and Authentication- Common criteria, DITSCAP- Assurance Evidence
	0 1 2 3 4	0 1 2 3 4	X	X	X	X	X		
	<u>Developmental Opportunities:</u> Learning: - NETg Technical Training Courses (all) Work-based: - Partnering with Industry (all)	<u>Gap Assessment:</u> _____ - _____ = _____ Required Proficiency - Current Proficiency = Gap <u>Gap Mitigation Strategy:</u>							

Information Assurance Career Area

Job Roles

The job roles in the Information Assurance Career Area include the following competencies:

❖ **Computer Forensics**

Definition: coordinates with Federal, state, local and private sector law enforcement and other computer forensic entities to investigate and resolve issues and crimes where information may be tampered with or information security (INFOSEC) compromised; preserves evidence and restores the information infrastructure.

1. Information Security Regulatory Guidance
2. Computer Forensics Liaison
3. Contingency and Disaster Recovery Tools and Techniques
4. Program Management
5. Contracting Officer's Representative
6. Information Assurance

❖ **Encryption**

Definition: protects National assets and resources through the use of encryption tools and techniques; formulates encryption and communications security policies and recommendations; protects communications from exploitation by foreign intelligence services; ensures the security of U.S. cryptographic systems, prevents electronic emissions from various communications equipment, and physically protects communications security equipment.

1. Encryption Tools and Techniques
2. Communications Security
3. Information Systems Security Operations
4. Encryption/Communications Security Policy
5. Architecture
6. Program Management
7. Contracting Officer's Representative
8. Information Assurance

❖ **Information System/Network Security**

Definition: develops and applies standards, methods, and tools to ensure application of security considerations throughout the life cycle of DoD information systems; manages incident responses, contingency planning, and reconstitution of the information infrastructure.

1. Information Systems Security Tools and Techniques
2. Information Security/Information Assurance Regulatory Guidance
3. Risk Assessment and Mitigation
4. Architecture
5. Information System Security Operations
6. Program Management

7. Contracting Officer's Representative
8. Information Assurance

❖ **Information System Security Management**

Definition: manages INFOSEC, operations, technical/administrative evaluation, and oversight for the entire system/network life cycle.

1. Information Security/Information Assurance Policy
2. Information Systems Security Tools and Techniques
3. Information System Security Operations
4. Program Management
5. Contracting Officer's Representative
6. Information Assurance

❖ **Policy**

Definition: studies and interprets national level policy (promulgated by Congress, Office of Management and Budget, National Institute for Standards and Technology, General Services Administration, the Director of Central Intelligence, and DoD) and integrates it into DON policies.

1. Information Security/Information Assurance Policy
2. Information System Security Operations
3. Information Systems Security Tools and Techniques
4. AIS Life Cycle Management
5. Risk Assessment and Mitigation
6. Program Management
7. Contracting Officer's Representative
8. Information Assurance

❖ **Project Management**

Definition: within the Information Assurance area, supports the acquisition of required hardware, software, support systems, and other materials while ensuring the adherence to Federal Law and DoD and DON life cycle management regulations; provides guidance for system oversight, reviews, and milestone approval for DON-managed information system programs; manages contracts and related supplier management functions; performs COR functions.

1. Systems Development
2. Systems Acquisition
3. Information Resource Management
4. Risk Management
5. Business Development
6. Quality Assurance
7. Configuration Management
8. Program Management
9. Contracting Officer's Representative
10. Information Assurance

❖ **Research & Development**

Definition: conducts basic scientific research and applies research to advanced technologies and prototypes for information assurance-related tools and products.

1. Basic Scientific Research
2. Applied Research
3. Advanced Concept Technology Demonstration
4. Requirements Analysis
5. Modeling and Simulation
6. Program Management
7. Contracting Officer's Representative
8. Information Assurance

❖ **Risk Management**

Definition: evaluates information systems to identify residual risks; assesses the risk to information systems and networks from attack and/or intrusion; recommends safeguards and protections to manage and mitigate risks; documents system security plans, policies, and procedures; performs system security accreditation and certification; often acts as Information System Security Officer (ISSO), Network Security Officer (NSO), Designated Approval Authority (DAA), or similar function.

1. Risk Assessment and Mitigation
2. Vulnerability Assessment Tools and Techniques
3. Information Systems Security Certification
4. Information Security/Information Assurance Policy
5. Contingency and Disaster Recovery Tools and Techniques
6. Architecture
7. Network/Systems Security Operations
8. AIS Life Cycle Management
9. Program Management
10. Contracting Officer's Representative
11. Information Assurance

Competencies by Job Role

The following table illustrates the breakout of competencies (along the left hand side) by job role (across the top) within this career area:

Competency:	Computer Forensics	Encryption	Information Assurance Policy	Information System Security Management	Information System/Network Security	Project Management	Research and Development	Risk Management
Advanced Concept Technology Demonstration							•	
AIS Life Cycle Management			•					•
Applied Research							•	
Architecture		•			•			•
Basic Research							•	
Business Development						•		
Communications Security		•						
Computer Forensics Liaison	•							
Configuration Management						•		
Contingency and Disaster Recovery Tools and Techniques	•							•
Contracting Officers Representative (COR)	•	•	•	•	•	•	•	•
Encryption Tools and Techniques		•						
Encryption/Communications Security Policy		•						
Information Assurance	•	•	•	•	•	•	•	•
Information Resource Management						•		
Information Security/Information Assurance Policy			•	•				•
Information Security/Information Assurance Regulatory Guidance	•				•			
Information Systems Security Certification								•
Information Systems Security Operations		•	•	•	•			
Information Systems Security Tools and Techniques			•	•	•			
Modeling and Simulation							•	
Network/Systems Security Operations								•
Program Management	•	•	•	•	•	•	•	•
Quality Assurance						•		
Requirements Analysis							•	
Risk Assessment and Mitigation			•		•			•

Competency:	Computer Forensics	Encryption	Information Assurance Policy	Information System Security Management	Information System/Network Security	Project Management	Research and Development	Risk Management
Risk Management						●		
Systems Acquisition						●		
Systems Development						●		
Vulnerability Assessment Tools and Techniques								●

Job Roles by Occupational Series

The following table presents a matrix of the occupational series (on the left side) by the job roles in this career area (across the top). It is offered as general guidance to help identify where the work performed in the various job roles may be found in the federal government workforce. As such, it does not depict every situation that could occur. More detailed information on the draft classification standard for the Information Technology specialist (GS-2200) can be found in Appendix B of Volume I.

	Computer Forensics	Encryption	Information Systems/Network Security	Information Systems Security Management	Policy	Project Management	Research & Development	Risk Management
GS-340 Program Management				●	●	●		●
GS-343 Management & Program Analysis				●	●	●		●
GS-391 Telecommunications	●	●	●				●	
GS-392 General Telecommunications	●	●	●					
GS-854 Computer Engineer	●	●	●	●	●	●	●	●
GS-855 Electronics Engineer	●	●	●	●	●	●	●	●
GS-856 Electronics Technician		●						
GS-1550 Computer Science	●	●	●	●	●	●	●	●
GS-2210 ¹ IT Management	●	●	●	●	●	●	●	●

¹ Formerly GS-334 Computer Specialist.

Career Area: Information Assurance**Job Role: Computer Forensics**

1	Competency: Information Security/Information Assurance Regulatory	Proficiency:		Level:					Skill Topics:
<u>Strategic Value:</u> To protect National assets and resources; to formulate information systems security recommendations to the Designated Approval Authority (DAA); to guide projects through the life cycle management; to provide user technical assistance; to perform management review, validate security requirements, and meet the DON's requirements within cost and performance requirements.	<u>Learning Objectives:</u> Knowledge of and ability to apply information systems security laws, policies, directives and procedures.	Current	Required	E	I	J	S	Ex	- Methods/procedures to identify purchase, distribute, and maintain IM/IT assets in a secure manner - System operations life cycle - Network operations life cycle - System/Network certification process using DoD DAA - Applicable Federal, DoD and DON information resource management policies, laws and regulations - Information System security requirements definition - Federal, DoD and DON life cycle management policies - Cryptography
		0 1 2 3 4	0 1 2 3 4	X	X	X	X	X	
	<u>Developmental Opportunities:</u> Learning: - Information Resources Management College, Managing Information Security (E, I, J)- NETg Technical Training Courses (all) - Disaster Recovery Planning and Contingency Planning Courses (E, I) - Biometrics training (I, J) - NSA Encryption Courses (E, I) - Legal Courses (J, S) - Evidence Preservation Courses (I, J, S) Work-based: - Develop security plans and/or policies (J, S) - Perform or assist in system security certification and accreditation (I, J) - Partnering with Industry (all)	<u>Gap Assessment:</u> _____ - _____ = _____ Required Proficiency - Current Proficiency = Gap <u>Gap Mitigation Strategy:</u>							

Career Area: Information Assurance**Job Role: Computer Forensics**

2	Competency: Computer Forensics Liaison	Proficiency:		Level:					Skill Topics:
<u>Strategic Value:</u> To coordinate with other Federal, state, local and private sector law enforcement and other computer forensic entities to resolve issues; to coordinate and build internal and external consensus for organizational computer forensics program.	<u>Learning Objectives:</u> Knowledge of information security/information assurance laws, regulations and statutes; ability to coordinate with other Federal, State, Local and private law enforcement agencies in investigating breaches of information assurance.	Current	Required	E	I	J	S	Ex	- IA/INFOSEC laws, statutes and regulatory guidance - Evidence collection and preservation - Computer viruses - Criminal justice - Cryptography - Intrusion detection
		0 1 2 3 4	0 1 2 3 4					X	
	<u>Developmental Opportunities:</u> Learning: - Information Resources Management College, Managing Information Security (S) - NETg Technical Training Courses - Disaster Recovery Planning and Contingency Planning Courses - Biometrics training - NSA Encryption Courses - Legal Courses - Evidence Preservation Courses Work-based: - Develop security plans and/or policies (J, S) - Perform or assist in system security certification and accreditation (I, J) - Partnering with Industry (all)	<u>Gap Assessment:</u> _____ - _____ = _____ Required Proficiency - Current Proficiency = Gap <u>Gap Mitigation Strategy:</u>							

Career Area: Information Assurance**Job Role: Computer Forensics**

3	Competency: Program Management	Proficiency:		Level:					Skill Topics:
<u>Strategic Value:</u> <i>To achieve the needed outcomes of a specific program and related projects by ensuring proper management, performance and administration.</i>	<u>Learning Objectives:</u> Knowledge of the required outcomes, functional and political environments, organizations, activities, and constraints affecting a program. Knowledge of project definition and the ability to: relate required results and costs; lead teams that include members not in one's chain of command; apply systematic thinking to develop action plans; develop approaches to satisfy requirements and resolve issues; and ensure overall project quality. A PM has the knowledge and ability to coordinate the work of assigned staff and other functional experts matrixed to support the task.	Current	Required	E	I	J	S	Ex	<ul style="list-style-type: none">- Program strategic planning- Program role in organization/enterprise- Visionary leadership- Performance assessment- Project integration management- Quality management- Risk management- Financial management
		0 1 2 3 4	0 1 2 3 4			X	X	X	
	<u>Developmental Opportunities:</u> Learning: <ul style="list-style-type: none">- Information Resources Management College: (J, S)--Information Management Planning--Information Technology Acquisition for the CIO--IT Project Management- STAR Program (all)- DAWIA (all) Work-based: <ul style="list-style-type: none">- Serve as Contracting Officer's Representative (J, S)- Serve as project engineer or project manager (J)	<u>Gap Assessment:</u> _____ - _____ = _____ Required - Current = Gap Proficiency Proficiency <u>Gap Mitigation Strategy:</u>							

Career Area: Information Assurance**Job Role: Computer Forensics**

4	<u>Competency:</u> Contracting Officers Representative (COR)		<u>Proficiency:</u>		<u>Level:</u>					<u>Skill Topics:</u>
			Current	Required	E	I	J	S	Ex	
<u>Strategic Value:</u> To ensure contractor performance and delivery is in compliance with a given contract.	<u>Learning Objectives:</u> Knowledge of and ability to make technical decisions within the scope of the contract/task; serve as the day-to-day point of contact for contractual matters; assess the technical quality of performed work; approve deliverables for acceptance.		0 1 2 3 4	0 1 2 3 4		X	X	X		- Deliverable item review and approval - Contract types (e.g., IDIQ, cost reimbursable, time and materials, firm fixed price) - Cost reporting - Contract rates - Delivery orders - Other direct costs (ODCs) - Contract Line Items (CLINs) - Contract milestones - Life cycle management - Statements of Work (SOW) - Contract options
	<u>Developmental Opportunities:</u> Learning: - STAR Program (all) - DAWIA (all)	<u>Gap Assessment:</u> <div style="display: flex; justify-content: space-around; align-items: center;"> <div>_____</div> <div>-</div> <div>_____</div> <div>=</div> <div>_____</div> </div> <div style="display: flex; justify-content: space-around; align-items: center; margin-top: 10px;"> <div>Required Proficiency</div> <div>-</div> <div>Current Proficiency</div> <div>=</div> <div>Gap</div> </div> <u>Gap Mitigation Strategy:</u>								

Career Area: Information Assurance**Job Role: Computer Forensics**

5	Competency: Information Assurance	Proficiency:		Level:					Skill Topics:
<u>Strategic Value:</u> To acquire, maintain and ensure the security of information systems in an effective, interoperable, scalable, reliable, integrated and affordable fashion.	<u>Learning Objectives:</u> Knowledge of and ability to apply physical access controls, technical security countermeasures, classification and safeguarding of controlled information and operational & industrial security. Ability to validate that appropriate countermeasures are being integrated correctly into program and to ensure that assurance evidence that demonstrates that the system is secure are produced.	Current	Required	E	I	J	S	Ex	- Information Systems Security - National Level IM/IT Policy - Trusted Systems - Discretionary and Mandatory Access Control - Identification and Authentication - Common criteria, DITSCAP - Assurance Evidence
		0 1 2 3 4	0 1 2 3 4	X	X	X	X	X	
	<u>Developmental Opportunities:</u> Learning: - NETg Technical Training Courses (all) Work-based: - Partnering with Industry (all)	<u>Gap Assessment:</u> _____ - _____ = _____ Required Proficiency - Current Proficiency = Gap <u>Gap Mitigation Strategy:</u>							

Career Area: Information Assurance**Job Role: Computer Forensics**

6	Competency: Contingency and Disaster Recovery Tools and Techniques	Proficiency:		Level:					Skill Topics:								
<u>Strategic Value:</u> To define and implement strategies for contingency and disaster recovery, preservation of electronic evidence, data recovery and continuity of operations plans for information systems.	<u>Learning Objectives:</u> Knowledge of and ability to use tools and techniques used in data recovery and preservation of electronic evidence (for example, chain of evidence rules).	Current					Required					E	I	J	S	Ex	- Computer forensics tools - Data recovery - Evidence preservation - Continuity of operations - Viruses - Operating systems - Attack tools - Network protocols
		0	1	2	3	4	0	1	2	3	4	X	X	X	X	X	
	<u>Developmental Opportunities:</u> Learning: - Information Resources Management College, Managing Information Security (E, I, J) - NETg Technical Training Courses (all) - Disaster Recovery Planning and Contingency Planning Courses (E, I) - Biometrics training (I, J) - NSA Encryption Courses (E, I) - Legal Courses (J, S) - Evidence Preservation Courses (I, J, S) Work-based: - Develop security plans and/or policies (J, S) - Perform or assist in system security certification and accreditation (I, J) - Partnering with Industry (all)	<u>Gap Assessment:</u> _____ - _____ = _____ Required Proficiency - Current Proficiency = Gap <u>Gap Mitigation Strategy:</u>															

Career Area: Information Assurance**Job Role: Encryption**

1	Competency: Encryption Tools and Techniques	Proficiency:		Level:					Skill Topics:
<u>Strategic Value:</u> To integrate encryption into multiple applications and technologies.	<u>Learning Objectives:</u> Knowledge of and ability to design, support and integrate encryption techniques across multiple platforms.	Current	Required	E	I	J	S	Ex	- PKI - Symmetric and asymmetric key - Cryptographic/encryption standards, products and protocols - Digital signatures - VPNs - Smart Cards - Ipsec - Secure Sockets Layer
		0 1 2 3 4	0 1 2 3 4	X	X	X	X		
	<u>Developmental Opportunities:</u> Learning: - Information Resources Management College, Managing Information Security (E, I, J) - NETg Technical Training Courses (all) - ISA Course (E, I) - NSVT Course (I, J) - NSA COMSEC/COMPUSEC/INFOSEC Course (all) - NSA TEMPEST Course (E, I) - CISM Training Pipeline (all) - Personnel Security Courses (E, I) - Physical Security Courses (E, I) - IAVA Training (E, I) - INFOCON Training (E, I) - EKMS Course (E, I) Work-based: - Serve as/assist Information System Security Officer (J) - Develop security plans and/or policies (J, S) - Conduct/assist system risk assessments (I, J) - Perform/assist in security certification and accreditation (I, J) - Partnering with Industry (all)	<u>Gap Assessment:</u> _____ - _____ = _____ Required - Current = Gap Proficiency Proficiency <u>Gap Mitigation Strategy:</u>							

Career Area: Information Assurance**Job Role: Encryption**

2	Competency: Communications Security	Proficiency:		Level:					Skill Topics:
<u>Strategic Value:</u> To protect communications from exploitation by foreign intelligence services; to ensure the security of U.S. cryptosystems, prevent electronic emissions from various communications equipment, and to physically protect communications security equipment.	<u>Learning Objectives:</u> Knowledge of and ability to apply communications security tools and practices to protect information systems, data and networks.	Current	Required	E	I	J	S	Ex	 - COMSEC material control, accounting, inventory and transport - COMSEC vulnerability analysis - Security, management and inspection requirements - Cryptographic systems - Electronic key management - STU III management
		0 1 2 3 4	0 1 2 3 4	X	X	X			
	<u>Developmental Opportunities:</u> Learning: - Information Resources Management College, Managing Information Security in a Networked Environment (all) - NETg Technical Training Courses (all) - ISA Course (E, I) - NSVT Course (I, J) - NSA COMSEC/COMPUSEC/INFOSEC Course (all) - NSA TEMPEST Course (E, I) - CISM Training Pipeline (all) - Personnel Security Courses (E, I) - Physical Security Courses (E, I) - IAVA Training (E, I) - INFOCON Training (E, I) - EKMS Course (E, I) Work-based: - Serve as/assist Information System Security Officer (J) - Develop security plans and/or policies (J, S) - Conduct/assist system risk assessments (I, J) - Perform/assist in security certification and accreditation (I, J) - Partnering with Industry (all)	<u>Gap Assessment:</u> _____ - _____ = _____ Required Proficiency - Current Proficiency = Gap <u>Gap Mitigation Strategy:</u>							

Career Area: Information Assurance**Job Role: Encryption**

3	Competency: Information Systems Security Operations	Proficiency:		Level:					Skill Topics:
<u>Strategic Value:</u> To ensure that security is provided for and implemented throughout the life cycle of an information system and/or network from the concept development phase through the design, development, operation, maintenance, and security disposal phases.	<u>Learning Objectives:</u> Knowledge of and ability to develop, evaluate, coordinate, and disseminate security tools and procedures.	Current	Required	E	I	J	S	Ex	<ul style="list-style-type: none">- Information systems- Information systems modeling methods- Capacity planning- Migration strategy development- Customer information system planning assistance- Customer information system design assistance- Customer information system modification assistance- Change management and control processes- Development and maintenance tools- Release package planning and status accounting- Documentation audits and reviews- Asset management tools- Configuration management history- Human factors practices- Network security issues- Network performance monitoring- Cryptography
		0 1 2 3 4	0 1 2 3 4	X	X	X	X		
	<u>Developmental Opportunities:</u> Learning: <ul style="list-style-type: none">- Information Resources Management College, Managing Information Security (E, I, J)- NETg Technical Training Courses (all)- ISA Course (E, I)- NSVT Course (I, J)- NSA COMSEC/COMPUSEC/INFOSEC Course (all)- NSA TEMPEST Course (E, I)- CISN Training Pipeline (all)- Personnel Security Courses (E, I)- Physical Security Courses (E, I)- IAVA Training (E, I)- INFOCON Training (E, I)- EKMS Course (E, I) Work-based: <ul style="list-style-type: none">- Serve as/assist Information System Security Officer (J)- Develop security plans and/or policies (J, S)- Conduct/assist system risk assessments (I, J)- Perform/assist in security certification and accreditation (I, J)- Partnering with Industry (all)	<u>Gap Assessment:</u> _____ - _____ = _____ Required - Current = Gap Proficiency Proficiency <u>Gap Mitigation Strategy:</u>							

Career Area: Information Assurance**Job Role: Encryption**

4	Competency: Encryption/Communications Security Policy	Proficiency:		Level:					Skill Topics:
<u>Strategic Value:</u> To protect National assets and resources; to formulate encryption and communications security policies and recommendations to the Designated Approval Authority (DAA).	<u>Learning Objectives:</u> Knowledge of and ability to apply encryption and communications security laws, policies, directives, regulations, guidance and procedures.	Current	Required	E	I	J	S	Ex	- Methods/procedures to identify purchase, distribute, and maintain IM/IT assets in a secure manner - System operations life cycle - Network operations life cycle - System/Network certification process using DoD DAA - Applicable Federal, DoD and DON information resource management policies, laws and regulations - Federal, DoD and DON life cycle management policies - Cryptography - System/Network vulnerabilities - Communications security (COMSEC)
		0 1 2 3 4	0 1 2 3 4	X	X	X	X	X	
	<u>Developmental Opportunities:</u> Learning: - Information Resources Management College, Managing Information Security in a Networked Environment (all) - NETg Technical Training Courses (all) - ISA Course (E, I) - NSVT Course (I, J) - NSA COMSEC/COMPUSEC/INFOSEC Course (all) - NSA TEMPEST Course (E, I) - CISN Training Pipeline (all) - Personnel Security Courses (E, I) - Physical Security Courses (E, I) - IAVA Training (E, I) - INFOCON Training (E, I) - EKMS Course (E, I) Work-based: - Serve as/assist Information System Security Officer (J) - Develop security plans and/or policies (J, S) - Conduct/assist system risk assessments (I, J) - Perform/assist in security certification and accreditation (I, J) - Partnering with Industry (all)	<u>Gap Assessment:</u> _____ - _____ = _____ Required - Current = Gap Proficiency Proficiency <u>Gap Mitigation Strategy:</u>							

Career Area: Information Assurance**Job Role: Encryption**

5	Competency: Architecture	Proficiency:		Level:					Skill Topics:
<u>Strategic Value:</u> To develop and maintain secure information systems and networks that are effective, interoperable, integrated and affordable.	<u>Learning Objectives:</u> Understanding the operational, systems and technical views of the architecture framework endorsed by DoD, and their application in computer and information systems components.	Current	Required	E	I	J	S	Ex	- OMB Memo M-97-16 - C4ISR architecture framework - Process modeling - Data interchange services - Computer systems architecture - System design, including hardware components and configuration - Database management - Distributed processing - Operating Systems - Networks - Systems software - Technical Standards--their role and specific standards in use and adopted by DoD and DON - Cryptographic equipment and systems - DoD Security Architecture (MSL) - Cryptography
		0 1 2 3 4	0 1 2 3 4	X	X	X	X	X	
	<u>Developmental Opportunities:</u> Learning: - Information Resources Management College, Managing Information Security (E, I, J) - Information Resources Management College, Managing Information Architectures and Infrastructures (all) - NETg Technical Training Courses (all) Work-based: - Include AIS Security controls during system development (I) - Analyze security software, hardware support tools (I) - Partnering with Industry (all)	<u>Gap Assessment:</u> _____ - _____ = _____ Required Proficiency - Current Proficiency = Gap <u>Gap Mitigation Strategy:</u>							

Career Area: Information Assurance**Job Role: Encryption**

6	Competency: Program Management	Proficiency:		Level:					Skill Topics:
<u>Strategic Value:</u> To achieve the needed outcomes of a specific program and related projects by ensuring proper management, performance and administration.	<u>Learning Objectives:</u> Knowledge of the required outcomes, functional and political environments, organizations, activities, and constraints affecting a program. Knowledge of project definition and the ability to: relate required results and costs; lead teams that include members not in one's chain of command; apply systematic thinking to develop action plans; develop approaches to satisfy requirements and resolve issues; and ensure overall project quality. A PM has the knowledge and ability to coordinate the work of assigned staff and other functional experts matrixed to support the task.	Current	Required	E	I	J	S	Ex	- Program strategic planning - Program role in organization/enterprise - Visionary leadership - Performance assessment - Project integration management - Quality management - Risk management - Financial management
		0 1 2 3 4	0 1 2 3 4			X	X	X	
	<u>Developmental Opportunities:</u> Learning: - Information Resources Management College: (J, S) --Information Management Planning --Information Technology Acquisition for the CIO --IT Project Management - STAR Program (all) - DAWIA (all) Work-based: - Serve as Contracting Officer's Representative (J, S) - Serve as project engineer or project manager (J)	<u>Gap Assessment:</u> _____ - _____ = _____ Required Proficiency - Current Proficiency = Gap <u>Gap Mitigation Strategy:</u>							

Career Area: Information Assurance**Job Role: Encryption**

7	<u>Competency:</u> Contracting Officers Representative (COR)		<u>Proficiency:</u>		<u>Level:</u>					<u>Skill Topics:</u>
			Current	Required	E	I	J	S	Ex	
<u>Strategic Value:</u> To ensure contractor performance and delivery is in compliance with a given contract.	<u>Learning Objectives:</u> Knowledge of and ability to make technical decisions within the scope of the contract/task; serve as the day-to-day point of contact for contractual matters; assess the technical quality of performed work; approve deliverables for acceptance.		0 1 2 3 4	0 1 2 3 4		X	X	X		- Deliverable item review and approval - Contract types (e.g., IDIQ, cost reimbursable, time and materials, firm fixed price) - Cost reporting - Contract rates - Delivery orders - Other direct costs (ODCs) - Contract Line Items (CLINs) - Contract milestones - Life cycle management - Statements of Work (SOW) - Contract options
	<u>Developmental Opportunities:</u> Learning: - STAR Program (all) - DAWIA (all)	<u>Gap Assessment:</u> <div style="display: flex; justify-content: space-around; align-items: center;"> <div>_____</div> <div>-</div> <div>_____</div> <div>=</div> <div>_____</div> </div> <div style="display: flex; justify-content: space-around; align-items: center; margin-top: 10px;"> <div>Required Proficiency</div> <div>-</div> <div>Current Proficiency</div> <div>=</div> <div>Gap</div> </div> <u>Gap Mitigation Strategy:</u>								

Career Area: Information Assurance**Job Role: Encryption**

8	Competency: Information Assurance	Proficiency:					Level:					Skill Topics:					
<u>Strategic Value:</u> To acquire, maintain and ensure the security of information systems in an effective, interoperable, scalable, reliable, integrated and affordable fashion.	<u>Learning Objectives:</u> Knowledge of and ability to apply physical access controls, technical security countermeasures, classification and safeguarding of controlled information and operational & industrial security. Ability to validate that appropriate countermeasures are being integrated correctly into program and to ensure that assurance evidence that demonstrates that the system is secure are produced.	Current					Required					E	I	J	S	Ex	- Information Systems Security - National Level IM/IT Policy - Trusted Systems - Discretionary and Mandatory Access Control - Identification and Authentication - Common criteria, DITSCAP - Assurance Evidence
		0	1	2	3	4	0	1	2	3	4	X	X	X	X	X	
	<u>Developmental Opportunities:</u> Learning: - NETg Technical Training Courses (all) Work-based: - Partnering with Industry (all)	<u>Gap Assessment:</u> _____ - _____ = _____ Required Proficiency - Current Proficiency = Gap <u>Gap Mitigation Strategy:</u>															

Career Area: Information Assurance**Job Role: Information Assurance Policy**

1	Competency: Information Security/Information Assurance Policy	Proficiency:		Level:					Skill Topics:
<u>Strategic Value:</u> To protect National assets and resources; to formulate information systems security policies and recommendations to the Designated Approval Authority (DAA); to guide projects through the life cycle management; to provide user technical assistance; to perform management review, validate security requirements, and meet the DON's requirements within cost and performance requirements.	<u>Learning Objectives:</u> Knowledge of and ability to apply information systems security laws, policies, directives, regulations, guidance and procedures.	Current	Required	E	I	J	S	Ex	- Methods/procedures to identify purchase, distribute, and maintain IM/IT assets in a secure manner - System operations life cycle - Network operations life cycle - System/Network certification process using DoD DAA - Applicable Federal, DoD and DON information resource management policies, laws and regulations - Information System security requirements definition- Federal, DoD and DON life cycle management policies - Cryptography - System/Network vulnerabilities - Technical Writing
		0 1 2 3 4	0 1 2 3 4	X	X	X	X	X	
	<u>Developmental Opportunities:</u> Learning: - Information Resources Management College, Managing Information Security (E, I, J) - NETg Technical Training Courses (all) - CIP Courses (all) - NSA COMSEC/COMPUSEC/INFOSEC Course (all) - Networking Courses (E, I, J) Work-based: - Serve as Policy Analyst (E, I, J) - Serve on CNO Staff (J, S) - Develop security plans and/or policies (J, S) - Perform or assist in system security certification and accreditation (I, J) - Partnering with Industry (all)	<u>Gap Assessment:</u> _____ - _____ = _____ Required - Current = Gap Proficiency Proficiency <u>Gap Mitigation Strategy:</u>							

Career Area: Information Assurance**Job Role: Information Assurance Policy**

2	Competency: Information Systems Security Operations	Proficiency:		Level:					Skill Topics:
<u>Strategic Value:</u> To ensure that security is provided for and implemented throughout the life cycle of an information system and/or network from the concept development phase through the design, development, operation, maintenance, and security disposal phases.	<u>Learning Objectives:</u> Knowledge of and ability to develop, evaluate, coordinate, and disseminate security tools and procedures.	Current	Required	E	I	J	S	Ex	<ul style="list-style-type: none">- Information systems- Information systems modeling methods- Capacity planning- Migration strategy development- Customer information system planning assistance- Customer information system design assistance- Customer information system modification assistance- Change management and control processes- Development and maintenance tools- Release package planning and status accounting- Documentation audits and reviews- Asset management tools- Configuration management history- Human factors practices- Network security issues- Network performance monitoring- Cryptography
		0 1 2 3 4	0 1 2 3 4	X	X	X	X		
	<u>Developmental Opportunities:</u> Learning: <ul style="list-style-type: none">- Information Resources Management College, Managing Information Security (E, I, J)- NETg Technical Training Courses (all)- CIP Courses (all)- NSA COMSEC/COMPUSEC/INFOSEC Course (all)- Networking Courses (E, I, J) Work-based: <ul style="list-style-type: none">- Serve as Policy Analyst (E, I, J)- Serve on CNO Staff (J, S)- Develop security plans and/or policies (J, S)- Perform or assist in system security certification and accreditation (I, J)- Partnering with Industry (all)	<u>Gap Assessment:</u> _____ - _____ = _____ Required Proficiency - Current Proficiency = Gap <u>Gap Mitigation Strategy:</u>							

Career Area: Information Assurance**Job Role: Information Assurance Policy**

3	Competency: Information Systems Security Tools and Techniques	Proficiency:					Level:					Skill Topics:					
<u>Strategic Value:</u> To protect information systems from attack and/or intrusion; to ensure proper access to information systems and their resources.	<u>Learning Objectives:</u> Knowledge of and ability to use basic tools and techniques to protect information systems.	Current					Required					E	I	J	S	Ex	- Authentication & Identification - Files/filesystem security - Encryption/Cryptography - Network security - Network servers - Administration tools - Limiting and monitoring tools - Security software - Computer viruses
		0	1	2	3	4	0	1	2	3	4	X	X	X			
	<u>Developmental Opportunities:</u> Learning: - Information Resources Management College, Managing Information Security (all) - NETg Technical Training Courses (all) - CIP Courses (all) - NSA COMSEC/COMPUSEC/INFOSEC Course (all) - Networking Courses (E, I, J) Work-based: - Serve as Policy Analyst (E, I, J) - Serve on CNO Staff (J, S) - Develop security plans and/or policies (J, S) - Perform or assist in system security certification and accreditation (I, J) - Partnering with Industry (all)	<u>Gap Assessment:</u> _____ - _____ = _____ Required - Current = Gap Proficiency Proficiency <u>Gap Mitigation Strategy:</u>															

Career Area: Information Assurance**Job Role: Information Assurance Policy**

4	Competency: AIS Life Cycle Management	Proficiency:					Level:					Skill Topics:					
<u>Strategic Value:</u> To ensure adherence to Federal law and DOD Life Cycle regulations in the acquisition, maintenance, operation and disposal of required hardware, support services and other materials.	<u>Learning Objectives:</u> Ability to acquire required hardware, software, support services and other materials.	Current					Required					E	I	J	S	Ex	- Project Planning - AIS Life Cycle Managemen - Security policies, standards, methodologies and tools - Cryptography
		0	1	2	3	4	0	1	2	3	4			X	X	X	
	<u>Developmental Opportunities:</u> Learning: - Information Resources Management College, Managing Information Security (I, J) - Information Resources Management College, Information Management Planning (S) - NETg Technical Training Courses (all) - CIP Courses (all) - NSA COMSEC/COMPUSEC/INFOSEC Course (all) - Networking Courses (E, I, J) Work-based: - Serve as Policy Analyst (E, I, J) - Serve on CNO Staff (J, S) - Develop security plans and/or policies (J, S) - Perform or assist in system security certification and accreditation (I, J) - Partnering with Industry (all)	<u>Gap Assessment:</u> _____-_____=_____ Required Proficiency - Current Proficiency = Gap <u>Gap Mitigation Strategy:</u>															

Career Area: Information Assurance**Job Role: Information Assurance Policy**

5	Competency: Risk Assessment and Mitigation	Proficiency:					Level:					Skill Topics:					
<u>Strategic Value:</u> To evaluate information systems to identify residual risks to make recommendations to meet the appropriate organizational security requirements.	<u>Learning Objectives:</u> Knowledge of and ability to use methods and tools used for risk assessment and mitigation of risk to information systems and data.	Current					Required					E	I	J	S	Ex	- Cross functional security disciplines (technical, administrative, personnel, physical) - Risk management policies and procedures - Hardware/software risks and vulnerabilities - Risk management methods and tools
		0	1	2	3	4	0	1	2	3	4	X	X	X	X	X	
	<u>Developmental Opportunities:</u> Learning: - Information Resources Management College, Managing Information Security (E, I, J) - NETg Technical Training Courses (all) - CIP Courses (all) - NSA COMSEC/COMPUSEC/INFOSEC Course (all) - Networking Courses (E, I, J) Work-based: - Serve as Policy Analyst (E, I, J) - Serve on CNO Staff (J, S) - Develop security plans and/or policies (J, S) - Perform or assist in system security certification and accreditation (I, J) - Partnering with Industry (all)	<u>Gap Assessment:</u> _____ - _____ = _____ Required Proficiency - Current Proficiency = Gap <u>Gap Mitigation Strategy:</u>															

Career Area: Information Assurance**Job Role: Information Assurance Policy**

6	Competency: Program Management	Proficiency:		Level:					Skill Topics:
<u>Strategic Value:</u> <i>To achieve the needed outcomes of a specific program and related projects by ensuring proper management, performance and administration.</i>	<u>Learning Objectives:</u> Knowledge of the required outcomes, functional and political environments, organizations, activities, and constraints affecting a program. Knowledge of project definition and the ability to: relate required results and costs; lead teams that include members not in one's chain of command; apply systematic thinking to develop action plans; develop approaches to satisfy requirements and resolve issues; and ensure overall project quality. A PM has the knowledge and ability to coordinate the work of assigned staff and other functional experts matrixed to support the task.	Current	Required	E	I	J	S	Ex	<ul style="list-style-type: none">- Program strategic planning- Program role in organization/enterprise- Visionary leadership- Performance assessment- Project integration management- Quality management- Risk management- Financial management
		0 1 2 3 4	0 1 2 3 4			X	X	X	
	<u>Developmental Opportunities:</u> Learning: <ul style="list-style-type: none">- Information Resources Management College: (J, S)--Information Management Planning--Information Technology Acquisition for the CIO--IT Project Management- STAR Program (all)- DAWIA (all) Work-based: <ul style="list-style-type: none">- Serve as Contracting Officer's Representative (J, S)- Serve as project engineer or project manager (J)	<u>Gap Assessment:</u> _____ - _____ = _____ Required Proficiency - Current Proficiency = Gap							
		<u>Gap Mitigation Strategy:</u>							

Job Role: Information Assurance Policy

7	Competency: Contracting Officers Representative (COR)	Proficiency:		Level:					Skill Topics:
<u>Strategic Value:</u> <i>To ensure contractor performance and delivery is in compliance with a given contract.</i>	<u>Learning Objectives:</u> Knowledge of and ability to make technical decisions within the scope of the contract/task; serve as the day-to-day point of contact for contractual matters; assess the technical quality of performed work; approve deliverables for acceptance.	Current	Required	E	I	J	S	Ex	- Deliverable item review and approval- Contract types (e.g., IDIQ, cost reimbursable, time and materials, firm fixed price) - Cost reporting - Contract rates - Delivery orders - Other direct costs (ODCs) - Contract Line Items (CLINs) - Contract milestones - Life cycle management - Statements of Work (SOW) - Contract options
	<u>Developmental Opportunities:</u> Learning: - STAR Program (all) - DAWIA (all)	<u>Gap Assessment:</u> <div> <div></div> <div>-</div> <div></div> <div>=</div> <div></div> </div> <div> <div>Required Proficiency</div> <div>-</div> <div>Current Proficiency</div> <div>=</div> <div>Gap</div> </div>							
		<u>Gap Mitigation Strategy:</u>							

Career Area: Information Assurance**Job Role: Information Assurance Policy**

8	Competency: Information Assurance		Proficiency:		Level:					Skill Topics:
			Current	Required	E	I	J	S	Ex	
Strategic Value: <i>To acquire, maintain and ensure the security of information systems in an effective, interoperable, scalable, reliable, integrated and affordable fashion.</i>	Learning Objectives: Knowledge of and ability to apply physical access controls, technical security countermeasures, classification and safeguarding of controlled information and operational & industrial security. Ability to validate that appropriate countermeasures are being integrated correctly into program and to ensure that assurance evidence that demonstrates that the system is secure are produced.	0 1 2 3 4 0 1 2 3 4	X	X	X	X	X		- Information Systems Security - National Level IM/IT Policy - Trusted Systems - Discretionary and Mandatory Access Control - Identification and Authentication - Common criteria, DITSCAP - Assurance Evidence	
	Developmental Opportunities: Learning: - NETg Technical Training Courses (all) Work-based: - Partnering with Industry (all)	Gap Assessment: <div style="text-align: center;"> _____ - _____ = _____ Required Current Proficiency Proficiency Gap </div> Gap Mitigation Strategy:								

Career Area: Information Assurance**Job Role: Information System Security Management**

1	Competency: Information Security/Information Assurance Policy	Proficiency:		Level:					Skill Topics:
<u>Strategic Value:</u> To protect National assets and resources; to formulate information systems security policies and recommendations to the Designated Approval Authority (DAA); to guide projects through the life cycle management; to provide user technical assistance; to perform management review, validate security requirements, and meet the DON's requirements within cost and performance requirements.	<u>Learning Objectives:</u> Knowledge of and ability to apply information systems security laws, policies, directives, regulations, guidance and procedures.	Current	Required	E	I	J	S	Ex	- Methods/procedures to identify purchase, distribute, and maintain IM/IT assets in a secure manner - System operations life cycle - Network operations life cycle - System/Network certification process using DoD DAA - Applicable Federal, DoD and DON information resource management policies, laws and regulations - Information System security requirements definition - Federal, DoD and DON life cycle management policies - Cryptography - System/Network vulnerabilities
		0 1 2 3 4	0 1 2 3 4	X	X	X	X	X	
	<u>Developmental Opportunities:</u> Learning: - Information Resources Management College, Managing Information Security (E, I, J) - NETg Technical Training Courses (all) - ISA Course (E, I) - NSVT Course (I, J) - NSA COMSEC/COMPUSEC/INFOSEC Course (all) - NSA TEMPEST Course (E, I) - CISM Training Pipeline (all) - Personnel Security Courses (E, I) - Physical Security Courses (E, I) - IAVA Training (E, I) - INFOCON Training (E, I) - EKMS Course (E, I) Work-based: - Serve as/assist Information System Security Officer (J) - Develop security plans and/or policies (J, S) - Conduct/assist system risk assessments (I, J) - Perform/assist in security certification and accreditation (I, J) - Partnering with Industry (all)	<u>Gap Assessment:</u> _____ - _____ = _____ Required Proficiency - Current Proficiency = Gap <u>Gap Mitigation Strategy:</u>							

Career Area: Information Assurance**Job Role: Information System Security Management**

2	Competency: Information Systems Security Tools and Techniques	Proficiency:	Level:	Skill Topics:
<u>Strategic Value:</u> <i>To protect information systems from attack and/or intrusion; to ensure proper access to information systems and their resources.</i>	<u>Learning Objectives:</u> Knowledge of and ability to use tools and techniques to protect information systems.	Current 0 1 2 3 4	Required 0 1 2 3 4	E I J S Ex X X X
	<u>Developmental Opportunities:</u> Learning: - Information Resources Management College, Managing Information Security (all) - NETg Technical Training Courses (all) - ISA Course (E, I) - NSVT Course (I, J) - NSA COMSEC/COMPUSEC/INFOSEC Course (all) - NSA TEMPEST Course (E, I) - CISN Training Pipeline (all) - Personnel Security Courses (E, I) - Physical Security Courses (E, I) - IAVA Training (E, I) - INFOCON Training (E, I) - DITSCAP Course (E) Work-based: - Serve as or assist Information System Security Officer (J) - Develop security plans and/or policies (J, S) - Conduct or assist in system risk assessments (I, J) - Perform/assist security certification and accreditation (I, J) - Partnering with Industry (all)	<u>Gap Assessment:</u> _____ - _____ = _____ Required Proficiency - Current Proficiency = Gap <u>Gap Mitigation Strategy:</u>		

- Physical and boot security
- Authentication
- Files/filesystem security
- Encryption/Cryptography
- Network security
- Network servers
- Firewalling
- IPsec
- VPNs
- Administration, limiting and monitoring tools
- Logging
- Attack detection, intrusion testing
- Security software
- Viruses
- Performing backups

Career Area: Information Assurance**Job Role: Information System Security Management**

3	Competency: Information Systems Security Operations	Proficiency:		Level:					Skill Topics:
<u>Strategic Value:</u> To ensure that security is provided for and implemented throughout the life cycle of an information system and/or network from the concept development phase through the design, development, operation, maintenance, and security disposal phases.	<u>Learning Objectives:</u> Knowledge of and ability to develop, evaluate, coordinate, and disseminate security tools and procedures.	Current	Required	E	I	J	S	Ex	<ul style="list-style-type: none">- Information systems modeling methods- Capacity planning- Migration strategy development- Customer information system planning assistance- Customer information system design assistance- Customer information system modification assistance- Change management and control processes- Development and maintenance tools- Release package planning and status accounting- Documentation audits and reviews- Asset management tools- Configuration management history- Human factors practices- Network security issues- Network performance monitoring- Cryptography
		0 1 2 3 4	0 1 2 3 4	X	X	X	X		
	<u>Developmental Opportunities:</u> Learning: <ul style="list-style-type: none">- Information Resources Management College, Managing Information Security (E, I, J)- NETg Technical Training Courses (all)- ISA Course (E, I)- NSVT Course (I, J)- NSA COMSEC/COMPUSEC/INFOSEC Course (all)- NSA TEMPEST Course (E, I)- CISM Training Pipeline (all)- Personnel Security Courses (E, I)- Physical Security Courses (E, I)- IAVA Training (E, I)- INFOCON Training (E, I) Work-based: <ul style="list-style-type: none">- Serve as/assist Information System Security Officer (J)- Develop security plans and/or policies (J, S)- Conduct or assist in system risk assessments (I, J)- Perform/assist security certification and accreditation (I, J)- Partnering with Industry (all)	<u>Gap Assessment:</u> _____ - _____ = _____ Required Proficiency - Current Proficiency = Gap <u>Gap Mitigation Strategy:</u>							

Career Area: Information Assurance**Job Role: Information System Security Management**

4	Competency: Program Management	Proficiency:	Level:	Skill Topics:
	<p><u>Strategic Value:</u></p> <p><i>To achieve the needed outcomes of a specific program and related projects by ensuring proper management, performance and administration.</i></p> <p><u>Learning Objectives:</u></p> <p>Knowledge of the required outcomes, functional and political environments, organizations, activities, and constraints affecting a program. Knowledge of project definition and the ability to: relate required results and costs; lead teams that include members not in one's chain of command; apply systematic thinking to develop action plans; develop approaches to satisfy requirements and resolve issues; and ensure overall project quality. A PM has the knowledge and ability to coordinate the work of assigned staff and other functional experts matrixed to support the task.</p> <p><u>Developmental Opportunities:</u></p> <p>Learning:</p> <ul style="list-style-type: none"> - Information Resources Management College: (J, S) --Information Management Planning --Information Technology Acquisition for the CIO --IT Project Management - STAR Program (all) - DAWIA (all) <p>Work-based:</p> <ul style="list-style-type: none"> - Serve as Contracting Officer's Representative (J, S) - Serve as project engineer or project manager (J) 	<p>Current</p> <p>0 1 2 3 4</p>	<p>Required</p> <p>0 1 2 3 4</p>	<p>E I J S Ex</p> <p>X X X</p> <p><u>Gap Assessment:</u></p> <p>_____ - _____ = _____</p> <p>Required Proficiency - Current Proficiency = Gap</p> <p><u>Gap Mitigation Strategy:</u></p> <p>- Program strategic planning</p> <p>- Program role in organization/enterprise</p> <p>- Visionary leadership</p> <p>- Performance assessment</p> <p>- Project integration management</p> <p>- Quality management</p> <p>- Risk management</p> <p>- Financial management</p>

Career Area: Information Assurance**Job Role: Information System Security Management**

5	<u>Competency:</u> Contracting Officers Representative (COR)		<u>Proficiency:</u>		<u>Level:</u>					<u>Skill Topics:</u>											
			Current	Required	E	I	J	S	Ex												
<u>Strategic Value:</u> To ensure contractor performance and delivery is in compliance with a given contract.			<u>Learning Objectives:</u> Knowledge of and ability to make technical decisions within the scope of the contract/task; serve as the day-to-day point of contact for contractual matters; assess the technical quality of performed work; approve deliverables for acceptance.		0	1	2	3	4	0	1	2	3	4							- Deliverable item review and approval - Contract types (e.g., IDIQ, cost reimbursable, time and materials, firm fixed price) - Cost reporting - Contract rates - Delivery orders - Other direct costs (ODCs) - Contract Line Items (CLINs) - Contract milestones - Life cycle management - Statements of Work (SOW) - Contract options
<u>Developmental Opportunities:</u> Learning: - STAR Program (all) - DAWIA (all)			<u>Gap Assessment:</u> _____ - _____ = _____ Required Proficiency - Current Proficiency = Gap <u>Gap Mitigation Strategy:</u>																		

Career Area: Information Assurance**Job Role: Information System Security Management**

6	Competency: Information Assurance	Proficiency:		Level:					Skill Topics:
<u>Strategic Value:</u> To acquire, maintain and ensure the security of information systems in an effective, interoperable, scalable, reliable, integrated and affordable fashion.	<u>Learning Objectives:</u> Knowledge of and ability to apply physical access controls, technical security countermeasures, classification and safeguarding of controlled information and operational & industrial security. Ability to validate that appropriate countermeasures are being integrated correctly into program and to ensure that assurance evidence that demonstrates that the system is secure are produced.	Current	Required	E	I	J	S	Ex	<ul style="list-style-type: none">- Information Systems Security- National Level IM/IT Policy- Trusted Systems- Discretionary and Mandatory Access Control- Identification and Authentication- Common criteria, DITSCAP- Assurance Evidence
		0 1 2 3 4	0 1 2 3 4	X	X	X	X	X	
	<u>Developmental Opportunities:</u> Learning: - NETg Technical Training Courses (all) Work-based: - Partnering with Industry (all)	<u>Gap Assessment:</u> _____ - _____ = _____ Required Proficiency - Current Proficiency = Gap <u>Gap Mitigation Strategy:</u>							

Career Area: Information Assurance**Job Role: Information System/Network Security**

1	Competency: Information Systems Security Tools and Techniques	Proficiency:					Level:					Skill Topics:					
<u>Strategic Value:</u> To protect information systems from attack and/or intrusion; to ensure proper access to information systems and their resources.	<u>Learning Objectives:</u> Knowledge of and ability to use tools and techniques to protect information systems.	Current					Required					E	I	J	S	Ex	- Physical and boot security - Authentication- Files/filesystem security - Encryption/Cryptography - Network security, network servers, firewalling - IPSec - VPNs - Administration tools - Limiting and monitoring tools, logging - Attack detection - Intrusion testing - Security software - Computer viruses - Performing backups
		0	1	2	3	4	0	1	2	3	4	X	X	X			
	<u>Developmental Opportunities:</u> Learning: - Information Resources Management College, Managing Information Security in a Networked Environment (all) - NETg Technical Training Courses (all) - ISA Course (E, I)- NSVT Course (I, J) - NSA COMSEC/COMPUSEC/INFOSEC Course (all) - NSA TEMPEST Course (E, I) - CISN Training Pipeline (all) - Personnel Security Courses (E, I) - Physical Security Courses (E, I) - IAVA Training (E, I) - INFOCON Training (E, I) Work-based: - Serve as/assist Information System Security Officer (J) - Serve as LAN administrator/security administrator (E, I) - Develop security plans/policies (J, S) - Conduct or assist in system risk assessments (I, J) - Perform/assist security certification and accreditation (I, J) - Partnering with Industry (all)	<u>Gap Assessment:</u> _____ - _____ = _____ Required Proficiency - Current Proficiency = Gap <u>Gap Mitigation Strategy:</u>															

Career Area: Information Assurance**Job Role: Information System/Network Security**

2	Competency: Information Security/Information Assurance Regulatory	Proficiency:		Level:					Skill Topics:
<u>Strategic Value:</u> To protect National assets and resources; to formulate information systems security recommendations to the Designated Approval Authority (DAA); to guide projects through the life cycle management; to provide user technical assistance; to	<u>Learning Objectives:</u> Knowledge of and ability to apply information systems security laws, policies, directives and procedures.	Current	Required	E	I	J	S	Ex	- Methods/procedures to identify purchase, distribute, and maintain IM/IT assets in a secure manner - System operations life cycle - Network operations life cycle - System/Network certification process using DoD DAA - Applicable Federal, DoD and DON information resource management policies, laws and regulations - information System security requirements definition - Federal, DoD and DON life cycle management policies- Cryptography
		0 1 2 3 4	0 1 2 3 4	X	X	X	X	X	
	<u>Developmental Opportunities:</u> Learning: - Information Resources Management College, Managing Information Security in a Networked Environment (E, I, J) - NETg Technical Training Courses - ISA Course - NSVT Course - CISN Training Pipeline - Navy IA Training - IAVA Training - INFOCON Training - NSA TEMPEST course - DITSCAP course Work-based: - Serve as ISSO/ISSM (J) - Serve as LAN administrator/LAN security administrator (E, I) - Develop security plans and/or policies (J, S) - Perform or assist in system security certification and accreditation (I, J) - Partnering with Industry (all)	<u>Gap Assessment:</u> _____ - _____ = _____ Required - Current = Gap Proficiency Proficiency <u>Gap Mitigation Strategy:</u>							

Career Area: Information Assurance**Job Role: Information System/Network Security**

3	Competency: Risk Assessment and Mitigation		Proficiency:		Level:					Skill Topics:
<u>Strategic Value:</u> To evaluate information systems to identify residual risks to make recommendations to meet the appropriate organizational security requirements.	<u>Learning Objectives:</u> Knowledge of and ability to use methods and tools used for risk assessment and mitigation of risk to information systems and data.	Current	Required	E	I	J	S	Ex	- Cross functional security disciplines (technical, administrative, personnel, physical) - Risk management policies and procedures - Hardware/software risks and vulnerabilities - Risk management methods and tools	
		0 1 2 3 4	0 1 2 3 4	X	X	X	X	X		
	<u>Developmental Opportunities:</u> Learning: - Information Resources Management College, Managing Information Security in a Networked Environment (E, I, J) - NETg Technical Training Courses (Certification & Accreditation) (all) - NSA TEMPEST Course (E, I) - DITSCAP Course (E) - CISN Training Pipeline (all) - Navy IA Training (E, I, J) - INFOCON Training (E, I) - Disaster Recovery Training (E, I) Work-based: - Serve as ISSO/ISSM (J) - Serve as LAN administrator/security administrator (E, I) - Include AIS security controls during system development (I) - Analyze security software, hardware support tools (I) - Conduct/assist system risk assessments (I, J) - Conduct system vulnerability tests (J) - Perform/assist security certification and accreditation (I, J) - Partnering with Industry (all)	<u>Gap Assessment:</u> _____ - _____ = _____ Required Proficiency - Current Proficiency = Gap <u>Gap Mitigation Strategy:</u>								

Career Area: Information Assurance**Job Role: Information System/Network Security**

4	Competency: Architecture	Proficiency:		Level:					Skill Topics:
<u>Strategic Value:</u> To develop and maintain secure information systems and networks that are effective, interoperable, integrated and affordable.	<u>Learning Objectives:</u> Understanding the operational, systems and technical views of the architecture framework endorsed by DoD, and their application in computer and information systems components.	Current	Required	E	I	J	S	Ex	<ul style="list-style-type: none">- OMB Memo M-97-16- C4ISR architecture framework- Process modeling- Data interchange services- Computer systems architecture- System design, including hardware components and configuration- Database management- Distributed processing- Operating Systems- Networks- Systems software- Technical Standards--their role and specific standards in use and adopted by DoD and DON- Cryptographic equipment and systems- DoD Security Architecture (MSL)- Cryptography
		0 1 2 3 4	0 1 2 3 4	X	X	X	X	X	
	<u>Developmental Opportunities:</u> Learning: <ul style="list-style-type: none">- Information Resources Management College, Managing Information Security in a Networked Environment (E, I, J)- Information Resources Management College, Managing Information Architectures and Infrastructures (all)- NETg Technical Training Courses (all) Work-based: <ul style="list-style-type: none">- Serve as ISSO/ISSM (J)- Serve as LAN administrator/LAN security administrator (E, I)- Include AIS Security controls during system development (I)- Analyze security software, hardware support tools (I)- Partnering with Industry (all)	<u>Gap Assessment:</u> _____ - _____ = _____ Required Proficiency - Current Proficiency = Gap							
		<u>Gap Mitigation Strategy:</u>							

Career Area: Information Assurance**Job Role: Information System/Network Security**

5	Competency: Information Systems Security Operations	Proficiency:		Level:					Skill Topics:
<u>Strategic Value:</u> To ensure that security is provided for and implemented throughout the life cycle of an information system and/or network from the concept development phase through the design, development, operation, maintenance, and security disposal p	<u>Learning Objectives:</u> Knowledge of and ability to develop, evaluate, coordinate, and disseminate security tools and procedures.	Current	Required	E	I	J	S	Ex	- Information systems modeling methods - Capacity planning - Migration strategy development - Customer IS planning, design and modification assistance - Change management and control processes - Development and maintenance tools - Release package planning and status accounting - Documentation audits and reviews - Asset management tools - Configuration management history - Human factors practices - Network security issues, performance monitoring - Cryptography
		0 1 2 3 4	0 1 2 3 4	X	X	X	X		
	<u>Developmental Opportunities:</u> Learning: - Information Resources Management College, Managing Information Security in a Networked Environment (E, I, J) - NETg Technical Training Courses (all) - ISA Course (E, I)- NSVT Course (I, J) - NSA COMSEC/COMPUSEC/INFOSEC Course (all) - NSA TEMPEST Course (E, I) - CISN Training Pipeline (all) - Personnel Security Courses (E, I) - Physical Security Courses (E, I) - IAVA Training (E, I) - INFOCON Training (E, I) Work-based: - Serve as/assist Information System Security Officer (J) - Serve as LAN administrator/LAN security administrator (E, I) - Develop security plans and/or policies (J, S) - Conduct/assist system risk assessments (I, J) - Perform or assist in system security certification and accreditation (I, J) - Partnering with Industry (all)	<u>Gap Assessment:</u> _____ - _____ = _____ Required Proficiency - Current Proficiency = Gap <u>Gap Mitigation Strategy:</u>							

Career Area: Information Assurance**Job Role: Information System/Network Security**

6	Competency: Program Management	Proficiency:		Level:					Skill Topics:
<u>Strategic Value:</u> To achieve the needed outcomes of a specific program and related projects by ensuring proper management, performance and administration.	<u>Learning Objectives:</u> Knowledge of the required outcomes, functional and political environments, organizations, activities, and constraints affecting a program. Knowledge of project definition and the ability to: relate required results and costs; lead teams that include members not in one's chain of command; apply systematic thinking to develop action plans; develop approaches to satisfy requirements and resolve issues; and ensure overall project quality. A PM has the knowledge and ability to coordinate the work of assigned staff and other functional experts matrixed to support the task.	Current	Required	E	I	J	S	Ex	- Program strategic planning - Program role in organization/enterprise - Visionary leadership - Performance assessment - Project integration management - Quality management - Risk management - Financial management
		0 1 2 3 4	0 1 2 3 4			X	X	X	
	<u>Developmental Opportunities:</u> Learning: - Information Resources Management College: (J, S) --Information Management Planning --Information Technology Acquisition for the CIO --IT Project Management - STAR Program (all) - DAWIA (all) Work-based: - Serve as Contracting Officer's Representative (J, S) - Serve as project engineer or project manager (J)	<u>Gap Assessment:</u> _____ - _____ = _____ Required Proficiency - Current Proficiency = Gap <u>Gap Mitigation Strategy:</u>							

Career Area: Information Assurance**Job Role: Information System/Network Security**

7	Competency: Contracting Officers Representative (COR)		Proficiency:		Level:					Skill Topics:
			Current	Required	E	I	J	S	Ex	
<u>Strategic Value:</u> <i>To ensure contractor performance and delivery is in compliance with a given contract.</i>	<u>Learning Objectives:</u> Knowledge of and ability to make technical decisions within the scope of the contract/task; serve as the day-to-day point of contact for contractual matters; assess the technical quality of performed work; approve deliverables for acceptance.	0 1 2 3 4	0 1 2 3 4		X	X	X			- Deliverable item review and approval - Contract types (e.g., IDIQ, cost reimbursable, time and materials, firm fixed price) - Cost reporting - Contract rates - Delivery orders - Other direct costs (ODCs) - Contract Line Items (CLINs) - Contract milestones - Life cycle management - Statements of Work (SOW) - Contract options
	<u>Developmental Opportunities:</u> Learning: - STAR Program (all) - DAWIA (all)	<u>Gap Assessment:</u> <div style="text-align: center;"> _____ - _____ = _____ Required Proficiency - Current Proficiency = Gap </div> <u>Gap Mitigation Strategy:</u>								

Career Area: Information Assurance**Job Role: Information System/Network Security**

8	Competency: Information Assurance	Proficiency:		Level:					Skill Topics:
<u>Strategic Value:</u> To acquire, maintain and ensure the security of information systems in an effective, interoperable, scalable, reliable, integrated and affordable fashion.	<u>Learning Objectives:</u> Knowledge of and ability to apply physical access controls, technical security countermeasures, classification and safeguarding of controlled information and operational & industrial security. Ability to validate that appropriate countermeasures are being integrated correctly into program and to ensure that assurance evidence that demonstrates that the system is secure are produced.	Current	Required	E	I	J	S	Ex	- Information Systems Security - National Level IM/IT Policy - Trusted Systems - Discretionary and Mandatory Access Control - Identification and Authentication - Common criteria, DITSCAP - Assurance Evidence
		0 1 2 3 4	0 1 2 3 4	X	X	X	X	X	
	<u>Developmental Opportunities:</u> Learning: - NETg Technical Training Courses (all) Work-based: - Partnering with Industry (all)	<u>Gap Assessment:</u> _____ - _____ = _____ Required Proficiency - Current Proficiency = Gap <u>Gap Mitigation Strategy:</u>							

Career Area: Information Assurance**Job Role: Project Management**

1	Competency: Systems Development	Proficiency:		Level:					Skill Topics:
		Current	Required	E	I	J	S	Ex	
Strategic Value: <i>To ensure that systems being developed meet functional requirements, are maintainable, secure, reliable, recoverable, on schedule and within cost.</i>	Learning Objectives: Knowledge of and ability to apply traditional and emerging design methodologies and programming services for developing information technology products and systems.	0 1 2 3 4	0 1 2 3 4			X	X		- DoD policies and guidelines - Database architecture and DBMS - Configuration management - Network architecture and software - Open systems and standards - CASE methodology and tools - Operating systems - Programming languages and coding - Object-oriented technology - Software, hardware and system testing - Quality assurance - Business Process Reengineering - Software reuse- Software metrics - Common criteria, DITSCAP
	Developmental Opportunities: Learning: - Information Resources Management College, Managing Information Security (J) - NETg Technical Training Courses (all) - DAWIA systems engineering courses (all) Work-based: - Include AIS Security controls during system development (J) - Analyze security software, hardware support tools (J) - Partnering with Industry (all) - Technical work in systems development (all)	Gap Assessment: _____ - _____ = _____ Required Proficiency - Current Proficiency = Gap Gap Mitigation Strategy:							

Career Area: Information Assurance**Job Role: Project Management**

2	Competency: Systems Acquisition	Proficiency:		Level:					Skill Topics:
<u>Strategic Value:</u> To ensure the organization's products and services reflect scalable customer requirements, both cost and technical, in a competitive environment, and to ensure these requirements are met through the acquisition process.	<u>Learning Objectives:</u> Knowledge of and ability to apply Federal, DoD and DON acquisition management guidance and analytical methods to formally plan, organize, direct and control the program and project acquisition process.	Current	Required	E	I	J	S	Ex	<ul style="list-style-type: none">- Procurement processes- Acquisition documentation- Life-cycle management- Economic analysis principles- Activity-based costing- DoD, DON budget and procurement processes- BPR methodologies, metrics, tools, and techniques- Plan and budgetary document development to support requirements- Metrics and performance analysis- Acquisition, Distribution and Disposal- Federal laws and DoD, DON regulations
		0 1 2 3 4	0 1 2 3 4			X	X	X	
	<u>Developmental Opportunities:</u> Learning: <ul style="list-style-type: none">- Information Resources Management College, Managing Information Security (J)- NETg Technical Training Courses (all)- DAWIA program management courses (all)- Information Resources Management College, Information Management Planning (all)- Information Resources Management College, Information Technology Acquisition for the CIO (S, Ex) Work-based: <ul style="list-style-type: none">- Include AIS Security controls during system development (J)- Analyze security software, hardware support tools (J)- Partnering with Industry (all)- Experience in acquisition programs (all)	<u>Gap Assessment:</u> _____ - _____ = _____ Required Proficiency - Current Proficiency = Gap <u>Gap Mitigation Strategy:</u>							

Career Area: Information Assurance**Job Role: Project Management**

3	Competency: Information Resource Management	Proficiency:		Level:					Skill Topics:
<u>Strategic Value:</u> To ensure organization information resources are a strategic asset that will provide the backbone of DON information needs by utilizing information resource assets in the most advantageous manner.	<u>Learning Objectives:</u> Knowledge of and ability to manage information, information systems and related resources according to Federal laws and DoD, DON regulations.	Current	Required	E	I	J	S	Ex	<ul style="list-style-type: none">- Information management- Information systems management- Related resource management- Project, program, contract and life-cycle management- Information resource management regulations, policies and procedures- Computer products and services analysis- Cost-benefit/economic analysis- Configuration management- Life-cycle cost analysis- Customer service
		0 1 2 3 4	0 1 2 3 4			X	X	X	
	<u>Developmental Opportunities:</u> Learning: <ul style="list-style-type: none">- Information Resources Management College, Managing Information Security (J)- NETg Technical Training Courses (all)- Information Resources Management College, Information Management Planning (all)- Information Resources Management College, Information Technology Acquisition for the CIO (S, Ex) Work-based: <ul style="list-style-type: none">- Include AIS Security controls during system development (J)- Analyze security software, hardware support tools (J)- Partnering with Industry (all)	<u>Gap Assessment:</u> _____ - _____ = _____ Required - Current = Gap Proficiency Proficiency <u>Gap Mitigation Strategy:</u>							

Career Area: Information Assurance**Job Role: Project Management**

4	Competency: Risk Management		Proficiency:		Level:					Skill Topics:					
	<u>Strategic Value:</u> To evaluate information systems to identify residual risks to make recommendations to meet the appropriate organizational security requirements.	<u>Learning Objectives:</u> Knowledge of and ability to use methods and tools used for risk assessment and mitigation of risk to information systems and data.	Current		Required		E	I	J	S	Ex	- Cross functional security disciplines (technical, administrative, personnel, physical) - Risk management policies and procedures - Hardware/software risks and vulnerabilities - Risk management methods and tools			
			0	1	2	3	4	0	1	2	3		4	X	X
		<u>Developmental Opportunities:</u> Learning: - Information Resources Management College, Managing Information Security (E, I, J) - NETg Technical Training Courses (Certification & Accreditation) (all) - NSA TEMPEST Course (E, I) - DITSCAP Course (E) - CISN Training Pipeline (all) - Navy IA Training (E, I, J) - INFOCON Training (E, I) - Disaster Recovery Training (E, I) Work-based: - Include AIS security controls during system development (I) - Analyze security software, hardware support tools (I) - Conduct or assist in system risk assessments (I, J) - Conduct system vulnerability tests (J) - Perform or assist in system security certification and accreditation (I, J) - Partnering with Industry (all)	<u>Gap Assessment:</u> _____ - _____ = _____ Required Proficiency - Current Proficiency = Gap <u>Gap Mitigation Strategy:</u>												

Career Area: Information Assurance**Job Role: Project Management**

5	Competency: Business Development	Proficiency:		Level:					Skill Topics:
<u>Strategic Value:</u> To sustain the structure and operations of the organization within projected cost and revenue, and to ensure requirements for planned growth and technology insertion are met with adequate capital investment resources.	<u>Learning Objectives:</u> Knowledge of and ability to apply financial management, cost and revenue projections, business cases, plans, methods, practices, policies and procedures, industry trends and market surveys, justifications, approvals, determinations and findings.	Current	Required	E	I	J	S	Ex	- Marketing - Customer business requirements - Competitive proposal preparation and presentation - Customer service - Business case analysis - Stakeholder mediation
		0 1 2 3 4	0 1 2 3 4			X	X		
	<u>Developmental Opportunities:</u> Learning: - Information Resources Management College, Managing Information Security (J) - NETg Technical Training Courses (all) - Information Resources Management College, Information Management Planning (all) - Information Resources Management College, Information Technology Acquisition for the CIO (S) - Managerial Accounting Course (all) - Financial management course (all) Work-based: - Include AIS Security controls during system development (J) - Analyze security software, hardware support tools (J) - Partnering with Industry (all)	<u>Gap Assessment:</u> _____ - _____ = _____ Required Proficiency - Current Proficiency = Gap <u>Gap Mitigation Strategy:</u>							

Career Area: Information Assurance**Job Role: Project Management**

6	Competency: Quality Assurance	Proficiency:		Level:					Skill Topics:
<u>Strategic Value:</u> To design, develop and deploy high quality systems by employing tools and methods that manage the system evolution.	<u>Learning Objectives:</u> Knowledge of and ability to apply principles, methods and tools of quality assurance; includes translating functional requirements into technical requirements used for logical design or presenting alternative technologies or approaches.	Current	Required	E	I	J	S	Ex	- Stakeholder requirements - Testing processes and procedures - OT&E - DT&E - IV&V - Performance measurement - Software metrics - Design reviews
		0 1 2 3 4	0 1 2 3 4	X	X	X	X		
	<u>Developmental Opportunities:</u> Learning: - Information Resources Management College, Managing Information Security (E, I, J) - NETg Technical Training courses (all) - Center for Quality Management courses (all) Work-based: - Include AIS Security controls during system development (I) - Analyze security software, hardware support tools (I) - Partnering with Industry (all)	<u>Gap Assessment:</u> _____ - _____ = _____ Required Proficiency - Current Proficiency = Gap <u>Gap Mitigation Strategy:</u>							

Career Area: Information Assurance**Job Role: Project Management**

7	Competency: Configuration Management	Proficiency:		Level:					Skill Topics:
<u>Strategic Value:</u> To ensure sound configuration management processes are established for information systems, to document mission support software and systems and to manage the configuration of existing networks.	<u>Learning Objectives:</u> Knowledge of and ability to identify, track (status accounting), control, and document information and physical characteristics of an information system or product (including documentation during a system's life cycle).	Current	Required	E	I	J	S	Ex	- Configuration management tools and methods - Tracking (status accounting), controlling and documenting information and physical characteristics of an information system or product - Configuration reviews and functional and physical auditing - DoD policies and guidelines - Protection of software (trusted)
		0 1 2 3 4	0 1 2 3 4			X	X		
	<u>Developmental Opportunities:</u> Learning: - Information Resources Management College, Managing Information Security (J) - NETg Technical Training Courses (all) - Information Resources Management College, Managing Information Architectures and Infrastructures (all) Work-based: - Include AIS Security controls during system development (J) - Analyze security software, hardware support tools (J) - Partnering with Industry (all)	<u>Gap Assessment:</u> _____ - _____ = _____ Required Proficiency - Current Proficiency = Gap <u>Gap Mitigation Strategy:</u>							

Career Area: Information Assurance**Job Role: Project Management**

8	Competency: Program Management	Proficiency:		Level:					Skill Topics:
		Current	Required	E	I	J	S	Ex	
<u>Strategic Value:</u> <i>To achieve the needed outcomes of a specific program and related projects by ensuring proper management, performance and administration.</i>	<u>Learning Objectives:</u> Knowledge of the required outcomes, functional and political environments, organizations, activities, and constraints affecting a program. Knowledge of project definition and the ability to: relate required results and costs; lead teams that include members not in one's chain of command; apply systematic thinking to develop action plans; develop approaches to satisfy requirements and resolve issues; and ensure overall project quality. A PM has the knowledge and ability to coordinate the work of assigned staff and other functional experts matrixed to support the task.	0 1 2 3 4	0 1 2 3 4			X	X	X	- Program strategic planning - Program role in organization/enterprise - Visionary leadership - Performance assessment - Project integration management - Quality management - Risk management - Financial management
	<u>Developmental Opportunities:</u> Learning: - Information Resources Management College: (J, S) --Information Management Planning --Information Technology Acquisition for the CIO --IT Project Management- STAR Program (all) - DAWIA (all) Work-based: - Serve as Contracting Officer's Representative (J, S) - Serve as project engineer or project manager (J)	<u>Gap Assessment:</u> <div style="text-align: center;"> _____ - _____ = _____ Required Current Proficiency Proficiency Gap </div> <u>Gap Mitigation Strategy:</u>							

Career Area: Information Assurance**Job Role: Project Management**

9	Competency: Contracting Officers Representative (COR)		Proficiency:		Level:					Skill Topics:
			Current	Required	E	I	J	S	Ex	
<u>Strategic Value:</u> <i>To ensure contractor performance and delivery is in compliance with a given contract.</i>	<u>Learning Objectives:</u> Knowledge of and ability to make technical decisions within the scope of the contract/task; serve as the day-to-day point of contact for contractual matters; assess the technical quality of performed work; approve deliverables for acceptance.		0 1 2 3 4	0 1 2 3 4		X	X	X		- Deliverable item review and approval - Contract types (e.g., IDIQ, cost reimbursable, time and materials, firm fixed price) - Cost reporting - Contract rates - Delivery orders - Other direct costs (ODCs) - Contract Line Items (CLINs) - Contract milestones - Life cycle management - Statements of Work (SOW) - Contract options
	<u>Developmental Opportunities:</u> Learning: - STAR Program (all) - DAWIA (all)	<u>Gap Assessment:</u> <div style="text-align: center;"> _____ - _____ = _____ Required Proficiency - Current Proficiency = Gap </div> <u>Gap Mitigation Strategy:</u>								

Career Area: Information Assurance**Job Role: Project Management**

10	Competency: Information Assurance	Proficiency:		Level:					Skill Topics:
<u>Strategic Value:</u> To acquire, maintain and ensure the security of information systems in an effective, interoperable, scalable, reliable, integrated and affordable fashion.	<u>Learning Objectives:</u> Knowledge of and ability to apply physical access controls, technical security countermeasures, classification and safeguarding of controlled information and operational & industrial security. Ability to validate that appropriate countermeasures are being integrated correctly into program and to ensure that assurance evidence that demonstrates that the system is secure are produced.	Current	Required	E	I	J	S	Ex	- Information Systems Security - National Level IM/IT Policy - Trusted Systems - Discretionary and Mandatory Access Control - Identification and Authentication - Common criteria, DITSCAP - Assurance Evidence
		0 1 2 3 4	0 1 2 3 4	X	X	X	X	X	
	<u>Developmental Opportunities:</u> Learning: - NETg Technical Training Courses (all) Work-based: - Partnering with Industry (all)	<u>Gap Assessment:</u> _____ - _____ = _____ Required Proficiency - Current Proficiency = Gap <u>Gap Mitigation Strategy:</u>							

Career Area: Information Assurance**Job Role: Research and Development**

1	Competency: Basic Research	Proficiency:		Level:					Skill Topics:
		Current	Required	E	I	J	S	Ex	
<u>Strategic Value:</u> To conduct basic research to support future DON information systems.	<u>Learning Objectives:</u> Knowledge of and ability to conduct cutting edge research and apply it to future DON needs.	0 1 2 3 4	0 1 2 3 4			X	X		- Publications and technical writing - Literature searches - Cooperative Research and Development Agreements (CRADAs) - Technical speech and presentation - Proposal development
	<u>Developmental Opportunities:</u> Learning: - Information Resources Management College, Managing Information Security (J) - Classes for background as needed for new research topics (all) Work-based: - Conferences, workshops, presenting papers (all) - Professional study, journals (all) - Professional association membership (all) - Program Chair / Committees (all) - Dissertation committees (all) - Organizational trends (S, Ex) - Evaluating proposals (S, Ex)	<u>Gap Assessment:</u> _____ - _____ = _____ Required Proficiency - Current Proficiency = Gap <u>Gap Mitigation Strategy:</u>							

Career Area: Information Assurance**Job Role: Research and Development**

2	Competency: Applied Research	Proficiency:		Level:					Skill Topics:
		Current	Required	E	I	J	S	Ex	
Strategic Value: <i>To apply basic research in support of future DON information systems.</i>	Learning Objectives: Knowledge of and ability to conduct and apply cutting edge research and apply it to future DON needs.	0 1 2 3 4	0 1 2 3 4			X	X		- Requirements analysis - Customer functional and infrastructure analysis - Customer information management - Customer requirements - Converting research into prototype systems - Transitioning from prototype systems to engineering development models - Test & Evaluation - Product design - Systems integration - CRADAs - Liaison with universities, industry
	Developmental Opportunities: Learning: - Information Resources Management College, Managing Information Security (J) Work-based: - Conferences, workshops, presenting papers (all) - Professional study, journals (all) - Professional association membership (all) - Program Chair / Committees (all) - Dissertation committees (all) - Organizational trends (S, Ex) - Evaluating proposals (S, Ex) - Investigate potential applications (all)	Gap Assessment: _____ - _____ = _____ Required Proficiency - Current Proficiency = Gap Gap Mitigation Strategy:							

Career Area: Information Assurance**Job Role: Research and Development**

3	Competency: Advanced Concept Technology Demonstration	Proficiency:		Level:					Skill Topics:
<u>Strategic Value:</u> To develop prototypes of advanced technology for use in future DON information systems.	<u>Learning Objectives:</u> Knowledge of and ability to apply cutting edge research into advanced concept technology demonstrations.	Current	Required	E	I	J	S	Ex	- Demonstrations and validation - Customer requirements and support - Training - Graphical User Interface improvement - Incremental development - System integration and management - Proposal development
		0 1 2 3 4	0 1 2 3 4	X	X	X	X		
	<u>Developmental Opportunities:</u> Learning: - Information Resources Management College, Managing Information Security (E, I, J) Work-based: - Conferences, workshops, presenting papers (all) - Professional study, journals (all) - Professional association membership (all) - Program Chair / Committees (all) - Dissertation committees (all) - Organizational trends (S, Ex) - Evaluating proposals (S, Ex) - Investigate potential applications (all)	<u>Gap Assessment:</u> _____ - _____ = _____ Required Proficiency - Current Proficiency = Gap <u>Gap Mitigation Strategy:</u>							

Career Area: Information Assurance**Job Role: Research and Development**

4	Competency: Requirements Analysis	Proficiency:		Level:					Skill Topics:
<u>Strategic Value:</u> To ensure stakeholder (e.g. customers, end-users) requirements are incorporated in the systems engineering of information systems.	<u>Learning Objectives:</u> Knowledge of and ability to analyze, identify, specify and manage functional and infrastructure requirements needed to achieve customer, organization and DON goals.	Current	Required	E	I	J	S	Ex	- DoD mission, organization and roles - DoD Components' (Services and Agencies) missions, organizations and roles - Unified Command structure, mission and roles - Mission support requirements - Analysis tools and methods - Stakeholder requirements - Operations and logistics requirements - Security requirements
		0 1 2 3 4	0 1 2 3 4	X	X	X	X		
	<u>Developmental Opportunities:</u> Learning: - Information Resources Management College, Managing Information Security (E, I, J) - NETg Technical Training Courses (all) - Attend course on Requirements Specification (E, I) Work-based: - Serve as an Information System Security Officer (ISSO) or assist the ISSO (J) - Analyze security software, hardware support tools (I) - Conduct or assist in system risk assessments (I, J) - Conduct system vulnerability tests (J) - Partnering with Industry (all) - Work on specification writing team (E, I, J)	<u>Gap Assessment:</u> _____ - _____ = _____ Required Proficiency - Current Proficiency = Gap <u>Gap Mitigation Strategy:</u>							

Career Area: Information Assurance**Job Role: Research and Development**

5	Competency: Modeling and Simulation		Proficiency:		Level:					Skill Topics:
<u>Strategic Value:</u> To evaluate and assess evolving information systems and to ensure greater efficiency, improved service, and cost effective operations.	<u>Learning Objectives:</u> Knowledge of and ability to apply modeling and simulation tools and techniques to characterize systems of interest, to support decisions involving requirements, to evaluate design alternatives, to support training, or to support operational preparation.	Current	Required	E	I	J	S	Ex	<ul style="list-style-type: none">- Analytic modeling (includes methods and tools)- Time-step simulation- Event-step simulation- Trace capture/playback- Remote terminal emulation- Database sampling- Test data generators- Protocols for federated models (e.g., DIS, ALSP, HLA)- Simulation-based design	
			0 1 2 3 4	0 1 2 3 4	X	X	X	X		
	<u>Developmental Opportunities:</u> Learning: <ul style="list-style-type: none">- Information Resources Management College, Managing Information Security (E, I, J)- NETg Technical Training Courses (all)- Attend M&S conferences (I, J) Work-based: <ul style="list-style-type: none">- Serve as an Information System Security Officer (ISSO) or assist the ISSO (J)- Analyze security software, hardware support tools (I)- Conduct or assist in system risk assessments (I, J)- Conduct system vulnerability tests (J)- Partnering with Industry (all)- Visiting other DoD/civilian sites to learn about modeling and simulation (all)	<u>Gap Assessment:</u> _____ - _____ = _____ Required Proficiency - Current Proficiency = Gap <u>Gap Mitigation Strategy:</u>								

Career Area: Information Assurance**Job Role: Research and Development**

6	Competency: Program Management	Proficiency:		Level:					Skill Topics:
		Current	Required	E	I	J	S	Ex	
<u>Strategic Value:</u> <i>To achieve the needed outcomes of a specific program and related projects by ensuring proper management, performance and administration.</i>	<u>Learning Objectives:</u> Knowledge of the required outcomes, functional and political environments, organizations, activities, and constraints affecting a program. Knowledge of project definition and the ability to: relate required results and costs; lead teams that include members not in one's chain of command; apply systematic thinking to develop action plans; develop approaches to satisfy requirements and resolve issues; and ensure overall project quality. A PM has the knowledge and ability to coordinate the work of assigned staff and other functional experts matrixed to support the task.	0 1 2 3 4	0 1 2 3 4			X	X	X	- Program strategic planning - Program role in organization/enterprise - Visionary leadership - Performance assessment - Project integration management - Quality management - Risk management - Financial management
	<u>Developmental Opportunities:</u> Learning: - Information Resources Management College: (J, S) --Information Management Planning --Information Technology Acquisition for the CIO --IT Project Management - STAR Program (all) - DAWIA (all) Work-based: - Serve as Contracting Officer's Representative (J, S) - Serve as project engineer or project manager (J)	<u>Gap Assessment:</u> <div style="text-align: center;"> _____ - _____ = _____ Required Current Proficiency Proficiency Gap </div> <u>Gap Mitigation Strategy:</u>							

Job Role: Research and Development

7	Competency: Contracting Officers Representative (COR)	Proficiency:		Level:					Skill Topics:
<p><u>Strategic Value:</u></p> <p>To ensure contractor performance and delivery is in compliance with a given contract.</p>	<p><u>Learning Objectives:</u></p> <p>Knowledge of and ability to make technical decisions within the scope of the contract/task; serve as the day-to-day point of contact for contractual matters; assess the technical quality of performed work; approve deliverables for acceptance.</p>	Current	Required	E	I	J	S	Ex	<ul style="list-style-type: none"> - Deliverable item review and approval - Contract types (e.g., IDIQ, cost reimbursable, time and materials, firm fixed price) - Cost reporting - Contract rates - Delivery orders - Other direct costs (ODCs) - Contract Line Items (CLINs) - Contract milestones - Life cycle management - Statements of Work (SOW) - Contract options
	<p><u>Developmental Opportunities:</u></p> <p>Learning:</p> <ul style="list-style-type: none"> - STAR Program (all) - DAWIA (all) 	<p><u>Gap Assessment:</u></p> <p>_____ - _____ = _____</p> <p>Required Proficiency - Current Proficiency = Gap</p> <p><u>Gap Mitigation Strategy:</u></p>							

Career Area: Information Assurance**Job Role: Research and Development**

8	Competency: Information Assurance		Proficiency:		Level:					Skill Topics:										
			Current	Required	E	I	J	S	Ex											
<u>Strategic Value:</u> <i>To acquire, maintain and ensure the security of information systems in an effective, interoperable, scalable, reliable, integrated and affordable fashion.</i>			<u>Learning Objectives:</u> Knowledge of and ability to apply physical access controls, technical security countermeasures, classification and safeguarding of controlled information and operational & industrial security. Ability to validate that appropriate countermeasures are being integrated correctly into program and to ensure that assurance evidence that demonstrates that the system is secure are produced.		0	1	2	3	4	0	1	2	3	4	X	X	X	X	X	- Information Systems Security - National Level IM/IT Policy - Trusted Systems - Discretionary and Mandatory Access Control - Identification and Authentication - Common criteria, DITSCAP - Assurance Evidence
<u>Developmental Opportunities:</u> Learning: - NETg Technical Training Courses (all) Work-based: - Partnering with Industry (all)			<u>Gap Assessment:</u> _____ - _____ = _____ Required Proficiency - Current Proficiency = Gap <u>Gap Mitigation Strategy:</u>																	

Career Area: Information Assurance**Job Role: Risk Management**

1	Competency: Risk Assessment and Mitigation	Proficiency:		Level:					Skill Topics:						
<u>Strategic Value:</u> To evaluate information systems to identify residual risks to make recommendations to meet the appropriate organizational security requirements.	<u>Learning Objectives:</u> Knowledge of and ability to use methods and tools used for risk assessment and mitigation of risk to information systems and data.	Current		Required		E	I	J	S	Ex	- Cross functional security disciplines (technical, administrative, personnel, physical) - Risk management policies and procedures - Hardware/software risks and vulnerabilities - Risk management methods and tools				
		0	1	2	3	4	0	1	2	3		4	X	X	X
	<u>Developmental Opportunities:</u> Learning: - Information Resources Management College, Managing Information Security (E, I, J) - NETg Technical Training Courses (Certification & Accreditation) (all) - NSA TEMPEST Course (E, I) - DITSCAP Course (E) - CISN Training Pipeline (all) - Navy IA Training (E, I, J) - INFOCON Training (E, I) - Disaster Recovery Training (E, I) Work-based: - Include AIS security controls during system development (I) - Analyze security software, hardware support tools (I) - Conduct or assist in system risk assessments (I, J) - Conduct system vulnerability tests (J) - Perform or assist in system security certification and accreditation (I, J) - Partnering with Industry (all)	<u>Gap Assessment:</u> _____ - _____ = _____ Required Proficiency - Current Proficiency = Gap <u>Gap Mitigation Strategy:</u>													

Career Area: Information Assurance**Job Role: Risk Management**

2	Competency: Vulnerability Assessment Tools and Techniques	Proficiency:		Level:					Skill Topics:
<u>Strategic Value:</u> To assess the risk to information systems and networks from attack and/or intrusion; to recommend safeguards and protections to manage and mitigate risks.	<u>Learning Objectives:</u> Knowledge of and ability to use tools and techniques for assessing risks to information systems.	Current	Required	E	I	J	S	Ex	<ul style="list-style-type: none">- Cryptography- System/Network vulnerabilities- Commercial assessment tools and products- Logical network traffic requirements- Physical network vulnerabilities- Authentication, Authorization, and Accounting Requirements- Firewall Recommendations- Remote Access Verifications Requirements- Internet Access Security Solutions- Vulnerability Testing
		0 1 2 3 4	0 1 2 3 4	X	X	X			
	<u>Developmental Opportunities:</u> Learning: <ul style="list-style-type: none">- Information Resources Management College, Managing Information Security (all)- NETg Technical Training Courses (all)- ISA Course (E, I)- NSVT Course (I, J)- NSA COMSEC/COMPUSEC/INFOSEC Course (all)- NSA TEMPEST Course (E, I)- CISN Training Pipeline (All)- Personnel Security Courses (E, I)- Physical Security Courses (E, I)- IAVA Training (E, I)- INFOCON Training (E, I)- DITSCAP Course (E) Work-based: <ul style="list-style-type: none">- Serve as/assist Information System Security Officer (J)- Develop security plans and/or policies (J, S)- Conduct/assist in system risk assessments (I, J)- Perform/ assist security certification and accreditation (I, J)- Partnering with Industry (all)	<u>Gap Assessment:</u> _____ - _____ = _____ Required - Current = Gap Proficiency Proficiency <u>Gap Mitigation Strategy:</u>							

Career Area: Information Assurance**Job Role: Risk Management**

3	Competency: Information Systems Security Certification	Proficiency:		Level:					Skill Topics:
<u>Strategic Value:</u> To develop certification and accreditation plans and procedures, document deficiencies, report corrective actions, and recommend changes to improve the security of information systems; to serve as the test director in the execution of test procedures; to determine inherent risks in system design and existing countermeasures; to improve efficiency and productivity of information systems; to interpret National, DOD and DON information security policies; to ensure information systems that are developed, procured, and installed adhere to information security standards and regulations.	<u>Learning Objectives:</u> Knowledge of and ability to provide technical evaluation of information systems security features and other safeguards (in the support of the accreditation process) to establish the extent to which a particular information system design and implementation meets a set of specified security requirements.	Current	Required	E	I	J	S	Ex	<ul style="list-style-type: none">- Risk assessment process, residual risk assessment- Certification Report of Findings- Accreditation recommendation development- Technical features and security protection requirements for information systems and networks- Security documentation, procedures and requirements for information systems and networks- Technical reports- Communications- Automated information systems processing- Communications Security (COMSEC)- Data security management- Emissions security (TEMPEST)- Telecommunications security practices- Information systems security compliance reviews- Certification and accreditation planning- Security test and evaluation plans and procedures- Risk analysis for new/legacy IM/IT systems/networks- Life cycle management documentation- Commercial hardware/software technical studies- Product procurement documentation- Performance measurement studies- Operational requirements- Cryptography
	<u>Developmental Opportunities:</u> Learning: <ul style="list-style-type: none">- IRMC, Managing Information Security (E, I, J)- NETg Technical Training Courses- ISA Course, NSVT Course- NSA COMSEC/COMPUSEC/INFOSEC Course- NSA TEMPEST Course- CISN Training Pipeline- Personnel Security Courses- Physical Security Courses- IAVA Training- INFOCON Training Work-based: <ul style="list-style-type: none">- Serve as the DAA/Certification Authority (S, Ex)- Serve as the ISSM or NSM (J, S)- Serve as or assist an Info System Security Officer (I, J)- Serve as NSO or TASO (E, I)- Develop security plans and/or policies (J, S)- Conduct/assist system risk assessments (I, J)- Perform/assist certification/accreditation (I, J)- Partnering with Industry (all)	<u>Gap Assessment:</u> _____-_____=_____ Required Proficiency - Current Proficiency = Gap <u>Gap Mitigation Strategy:</u>							

Career Area: Information Assurance**Job Role: Risk Management**

4	Competency: Information Security/Information Assurance Policy	Proficiency:		Level:					Skill Topics:
<u>Strategic Value:</u> To protect National assets and resources; to formulate information systems security policies and recommendations to the Designated Approval Authority (DAA); to guide projects through the life cycle management; to provide user technical assistance; to perform management review, validate security requirements, and meet the DON's requirements within cost and performance requirements.	<u>Learning Objectives:</u> Knowledge of and ability to apply information systems security laws, policies, directives, regulations, guidance and procedures.	Current	Required	E	I	J	S	Ex	- Methods/procedures to identify purchase, distribute, and maintain IM/IT assets in a secure manner - System operations life cycle - Network operations life cycle - System/Network certification process using DoD DAA - Applicable Federal, DoD and DON information resource management policies, laws and regulations - Information System security requirements definition - Federal, DoD and DON life cycle management policies - Cryptography - System/Network vulnerabilities
		0 1 2 3 4	0 1 2 3 4	X	X	X	X	X	
	<u>Developmental Opportunities:</u> Learning: - Information Resources Management College, Managing Information Security (E, I, J) - NETg Technical Training Courses (all) - ISA Course (E, I) - NSVT Course (I, J) - NSA COMSEC/COMPUSEC/INFOSEC Course (all) - NSA TEMPEST Course (E, I) - CISN Training Pipeline (all) - Personnel Security Courses (E, I) - Physical Security Courses (E, I) - IAVA Training (E, I) - INFOCON Training (E, I) - DITSCAP Course (E) Work-based: - Serve as/assist Information System Security Officer (J) - Develop security plans and/or policies (J, S) - Conduct or assist in system risk assessments (I, J) - Perform/assist security certification and accreditation (I, J) - Partnering with Industry (all)	<u>Gap Assessment:</u> _____ - _____ = _____ Required - Current = Gap Proficiency Proficiency <u>Gap Mitigation Strategy:</u>							

Career Area: Information Assurance**Job Role: Risk Management**

5	Competency: Contingency and Disaster Recovery Tools and Techniques	Proficiency:		Level:					Skill Topics:
<u>Strategic Value:</u> To restore information systems, networks and data to normal operations following contingencies, attacks and/or intrusion.	<u>Learning Objectives:</u> Knowledge of and ability to use tools and techniques to restore information systems, networks and data to a normal state following a contingency, attack and/or intrusion.	Current	Required	E	I	J	S	Ex	<ul style="list-style-type: none">- Contingency/Recovery Plans- Crisis Communications- Data Backup Procedures- Computer viruses and protection- Operating Systems- Network Topologies- Vulnerability Assessment- Threat Remediation and Mitigation- Incident Response Management- Information Infrastructure Loss Reconstitution
		0 1 2 3 4	0 1 2 3 4	X	X	X			
	<u>Developmental Opportunities:</u> Learning: <ul style="list-style-type: none">- Information Resources Management College, Managing Information Security (all)- NETg Technical Training Courses (all)- CIP Courses (all)- ISA Course (E, I)- NSVT Course (I, J)- NSA COMSEC/COMPUSEC/INFOSEC Course (all)- NSA TEMPEST Course (E, I)- CISN Training Pipeline (All)- Personnel, Physical Security Courses (E, I)- IAVA Training (E, I)- INFOCON Training (E, I)- DITSCAP Course (E) Work-based: <ul style="list-style-type: none">- Serve as/assist Information System Security Officer (J)- Develop security plans and/or policies (J, S)- Conduct/assist in system risk assessments (I, J)- Perform/assist security certification/accreditation (I, J)- Partnering with Industry (all)	<u>Gap Assessment:</u> _____ - _____ = _____ Required Proficiency - Current Proficiency = Gap <u>Gap Mitigation Strategy:</u>							

Career Area: Information Assurance**Job Role: Risk Management**

6	Competency: Architecture	Proficiency:		Level:					Skill Topics:
<u>Strategic Value:</u> To develop and maintain secure information systems and networks that are effective, interoperable, integrated and affordable.	<u>Learning Objectives:</u> Understanding the operational, systems and technical views of the architecture framework endorsed by DoD, and their application in computer and information systems components.	Current	Required	E	I	J	S	Ex	<ul style="list-style-type: none">- OMB Memo M-97-16- C4ISR architecture framework- Process modeling- Data interchange services- Computer systems architecture- System design, including hardware components and configuration- Database management- Distributed processing- Operating Systems- Networks- Systems software- Technical Standards--their role and specific standards in use and adopted by DoD and DON- Cryptographic equipment and systems- DoD Security Architecture (MSL)- Cryptography
		0 1 2 3 4	0 1 2 3 4	X	X	X	X	X	
	<u>Developmental Opportunities:</u> Learning: <ul style="list-style-type: none">- NETg Technical Training Courses (all)- Information Resources Management College, Managing Information Security (E, I, J)- Information Resources Management College, Managing Information Architectures and Infrastructures (all) Work-based: <ul style="list-style-type: none">- Include AIS Security controls during system development (I)- Analyze security software, hardware support tools (I)- Partnering with Industry (all)	<u>Gap Assessment:</u> _____ - _____ = _____ Required Proficiency - Current Proficiency = Gap							
		<u>Gap Mitigation Strategy:</u>							

Career Area: Information Assurance**Job Role: Risk Management**

7	Competency: Network/Systems Security Operations	Proficiency:		Level:					Skill Topics:
<u>Strategic Value:</u> <i>To protect and restore the security of information systems and network services and capabilities; identify and eliminate information systems vulnerabilities to inadvertent disclosure, modification, destruction, or denial of service.</i>	<u>Learning Objectives:</u> Knowledge of and ability to develop, evaluate, coordinate and disseminate security tools and procedures.	Current	Required	E	I	J	S	Ex	- Security operations Techniques and procedures - Troubleshooting - Requirements Documentation - Systems Analysis - Standard Data Elements and Codes - Cryptography
		0 1 2 3 4	0 1 2 3 4	X	X	X			
	<u>Developmental Opportunities:</u> Learning: - NETg Technical Training Courses (all) - Information Resources Management College, Managing Information Security in a Networked Environment (all) Work-based: - Serve as an Information System Security Officer (ISSO) or assist the ISSO (J) - Analyze security software, hardware support tools (I) - Conduct or assist in system risk assessments (I, J) - Conduct system vulnerability tests (J) - Partnering with Industry (all)	<u>Gap Assessment:</u> _____ - _____ = _____ Required Proficiency - Current Proficiency = Gap <u>Gap Mitigation Strategy:</u>							

Career Area: Information Assurance**Job Role: Risk Management**

8	Competency: AIS Life Cycle Management	Proficiency:		Level:					Skill Topics:
		Current	Required	E	I	J	S	Ex	
Strategic Value: <i>To ensure adherence to Federal law and DOD Life Cycle regulations in the acquisition, maintenance, operation and disposal of required hardware, support services and other materials.</i>	Learning Objectives: Ability to acquire required hardware, software, support services and other materials.	0 1 2 3 4	0 1 2 3 4		X	X	X		- Project Planning - AIS Life Cycle Management - Security policies, standards, methodologies, tools - Cryptography
	Developmental Opportunities: Learning: - NETg Technical Training Courses (all) - Information Resources Management College, Managing Information Security (I, J) - Information Resources Management College, Information Management Planning (S) Work-based: - Develop security plans and/or policies (J, S) - Perform or assist in system security certification and accreditation (I, J) - Partnering with Industry (all)	Gap Assessment: <div style="text-align: center;"> _____ - _____ = _____ Required Proficiency - Current Proficiency = Gap </div>					Gap Mitigation Strategy:		

Career Area: Information Assurance**Job Role: Risk Management**

9	Competency: Program Management	Proficiency:		Level:					Skill Topics:
<u>Strategic Value:</u> <i>To achieve the needed outcomes of a specific program and related projects by ensuring proper management, performance and administration.</i>	<u>Learning Objectives:</u> Knowledge of the required outcomes, functional and political environments, organizations, activities, and constraints affecting a program. Knowledge of project definition and the ability to: relate required results and costs; lead teams that include members not in one's chain of command; apply systematic thinking to develop action plans; develop approaches to satisfy requirements and resolve issues; and ensure overall project quality. A PM has the knowledge and ability to coordinate the work of assigned staff and other functional experts matrixed to support the task.	Current	Required	E	I	J	S	Ex	<ul style="list-style-type: none">- Program strategic planning- Program role in organization/enterprise- Visionary leadership- Performance assessment- Project integration management- Quality management- Risk management- Financial management
		0 1 2 3 4	0 1 2 3 4				X	X	
	<u>Developmental Opportunities:</u> Learning: <ul style="list-style-type: none">- Information Resources Management College: (J, S)--Information Management Planning--Information Technology Acquisition for the CIO--IT Project Management- STAR Program (all)- DAWIA (all) Work-based: <ul style="list-style-type: none">- Serve as Contracting Officer's Representative (J, S)- Serve as project engineer or project manager (J)	<u>Gap Assessment:</u> _____ - _____ = _____ Required Proficiency - Current Proficiency = Gap <u>Gap Mitigation Strategy:</u>							

Career Area: Information Assurance**Job Role: Risk Management**

10	<u>Competency:</u> Contracting Officers Representative (COR)		<u>Proficiency:</u>		<u>Level:</u>					<u>Skill Topics:</u>
			Current	Required	E	I	J	S	Ex	
<u>Strategic Value:</u> <i>To ensure contractor performance and delivery is in compliance with a given contract.</i>	<u>Learning Objectives:</u> Knowledge of and ability to make technical decisions within the scope of the contract/task; serve as the day-to-day point of contact for contractual matters; assess the technical quality of performed work; approve deliverables for acceptance.	0 1 2 3 4	0 1 2 3 4		X	X	X			- Deliverable item review and approval - Contract types (e.g., IDIQ, cost reimbursable, time and materials, firm fixed price) - Cost reporting - Contract rates - Delivery orders - Other direct costs (ODCs) - Contract Line Items (CLINs) - Contract milestones - Life cycle management - Statements of Work (SOW) - Contract options
	<u>Developmental Opportunities:</u> Learning: - STAR Program (all) - DAWIA (all)	<u>Gap Assessment:</u> <div style="text-align: center;"> _____ - _____ = _____ Required Proficiency - Current Proficiency = Gap </div> <u>Gap Mitigation Strategy:</u>								

Career Area: Information Assurance**Job Role: Risk Management**

11	Competency: Information Assurance	Proficiency:		Level:					Skill Topics:								
<u>Strategic Value:</u> To maintain and ensure the security of information systems in an effective, interoperable, scalable, reliable, integrated and affordable fashion.	<u>Learning Objectives:</u> Knowledge of and ability to apply physical access controls, technical security countermeasures, classification and safeguarding of controlled information and operational & industrial security.	Current					Required					E	I	J	S	Ex	- Information Systems Security - Systems Analysis - Systems Operation - Systems Evaluation - Systems Certification - Countermeasures - Internal and External Technical Advisement - National Level IM/IT Policy - Cryptography
		0	1	2	3	4	0	1	2	3	4	X	X	X	X		
	<u>Developmental Opportunities:</u> Learning: - NETg Technical Training Courses (all) - Information Resources Management College, Managing Information Security (E, I, J) - DITSCAP Course (E) Work-based: - Serve as an Information System Security Officer (ISSO) or assist the ISSO (J) - Develop security plans and/or policies (J, S) - Analyze security software, hardware support tools (I) - Conduct or assist in system risk assessments (I, J) - Conduct system vulnerability tests (J) - Perform/assist in security certification/accreditation (I, J) - Partnering with Industry (all)	<u>Gap Assessment:</u> _____ - _____ = _____ Required - Current = Gap Proficiency Proficiency <u>Gap Mitigation Strategy:</u>															

Telecommunications Career Area

Job Roles

The job roles in the Telecommunications Career Area include the following competencies:

❖ ***Network Communications***

Definition: works with the architecture and topology of ashore and afloat, deployed and Joint/Allied/Coalition networks and telecommunications systems, including Local Area Networks (LANs), Wide Area Networks (WANs), associated components, standards and protocols—their interoperability, control and management.

1. Long Haul Communications
2. Terrestrial Communications
3. Telecommunications Systems Architecture
4. Network Design
5. Testing Processes and Procedures
6. Operational Test and Evaluation
7. Program Management
8. Contracting Officer's Representative
9. Information Assurance

❖ ***Network Communications Engineering***

Definition: engineers ashore and afloat, deployed and Joint/Allied/Coalition networks and telecommunications systems; includes knowledge of transmissions, broadcasting, switching, control and operation of terrestrial, space, radio frequency (RF) and satellite networks, and telecommunications systems.

1. Long Haul Communications
2. Terrestrial Communications
3. Satellite Communications
4. Transmission Systems Engineering
5. Telecommunications Systems Architecture
6. Network Design
7. Testing Processes and Procedures
8. Operational Test and Evaluation
9. Developmental Test and Evaluation
10. Integrated Validation and Verification
11. Program Management
12. Contracting Officer's Representative
13. Information Assurance

❖ **Network Management**

Definition: designs networks and telecommunications systems and manages their operation; includes telecommunication system architectures, configuration management, and quality assurance (QA).

1. Network Management
2. Terrestrial Communications
3. Configuration Management
4. Telecommunications Systems Architecture
5. Network Design
6. Quality Assurance
7. Testing Processes and Procedures
8. Operational Test and Evaluation
9. Program Management
10. Contracting Officer's Representative
11. Information Assurance

❖ **Policy**

Definition: develops, administers, and interprets broad communications policies and regulations that establish the DON's position on broad organizational telecommunications issues; considers the total range of existing policies (e.g., privacy and security), procedures, laws, and regulations in relation to national security and organizational program goals and objectives.

1. Policy Development and Implementation
2. Policy Assessment
3. Telecommunications Systems Architecture
4. Program Management
5. Contracting Officer's Representative
6. Information Assurance

❖ **Project Management**

Definition: within the Telecommunications area, manages interrelated programs, contracts, and related supplier management functions; requires information transport and telecommunications technology life-cycle management skills.

1. Asset Management
2. Life Cycle Management
3. Configuration Management
4. Network Design
5. Telecommunications Systems Architecture
6. Program Management
7. Contracting Officer's Representative
8. Information Assurance

❖ **Research & Development**

Definition: conducts basic scientific research and applies research to advanced technologies and prototypes for networks and telecommunications systems.

1. Basic Scientific Research
2. Applied Research
3. Advanced Concept Technology Demonstration
4. Requirements Analysis
5. Modeling and Simulation
6. Program Management
7. Contracting Officer's Representative
8. Information Assurance

❖ **Network Operations**

Definition: uses standardized tools and methods to operate communication networks that provide voice, data, video and imagery services; includes network tech control, Joint/Allied/Coalition operations, and life cycle management; specialists working in this area manage and monitor communication networks and services throughout their entire life cycle, ensure mainframe connectivity, and work with infrastructure and wiring. *This job role is not considered inherently governmental.*

1. Network Operations
2. Encryption Tools and Techniques
3. Data Maintenance
4. Terrestrial Communications
5. Network Administration and Support
6. Telecommunications Systems Architecture
7. Information Assurance

Competencies by Job Role

The following table illustrates the breakout of competencies (along the left hand side) by job role (across the top) within this career area:

Competency:	Network Communications	Network Communications Engineering	Network Management	Network Operations	Policy	Project Management	Research and Development
Advanced Concept Technology Demonstration							•
Applied Research							•
Asset Management						•	
Basic Research							•
Configuration Management			•			•	
Contracting Officers Representative (COR)	•	•	•		•	•	•
Data Maintenance				•			
Developmental Test & Evaluation (DT&E)		•					•
Encryption Tools and Techniques				•			
Information Assurance	•	•	•	•	•	•	•
Integrated Verification & Validation (IV&V)		•					•
Life Cycle Management						•	
Long Haul Communications	•	•					
Modeling and Simulation							•
Network Administration and Support				•			
Network Design	•	•	•			•	
Network Management			•				
Network Operations				•			
Operational Test & Evaluation (OT&E)	•	•	•				
Policy Assessment					•		
Policy Development and Implementation					•		
Program Management	•	•	•		•	•	•
Quality Assurance			•				
Requirements Analysis							•
Satellite Communications		•					
Telecommunication System Architecture	•	•	•	•	•	•	•
Terrestrial Communications	•	•	•	•			

Competency:	Network Communications	Network Communications Engineering	Network Management	Network Operations	Policy	Project Management	Research and Development
Testing Processes and Procedures	●	●	●				
Transmission Systems Engineering		●					

Job Roles by Occupational Series

The following table presents a matrix of the occupational series (on the left side) by the job roles in this career area (across the top). It is offered as general guidance to help identify where the work performed in the various job roles may be found in the federal government workforce. As such, it does not depict every situation that could occur. More detailed information on the draft classification standard for the Information Technology Group (GS-2200) can be found in Appendix B of Volume I.

	Policy	Project Management	Network Communications	Network Communications Engineering	Network Management	Research & Development	* Network Operations
GS-335 Computer Clerk & Assistant							●
GS-340 Program Management	●	●					
GS-343 Management & Program Analysis	●	●					
GS-391 Telecommunications	●	●	●	●	●	●	●
GS-392 General Telecommunications			●		●		●
GS-854 Computer Engineer				●			
GS-855 Electronics Engineer				●			
GS-856 Electronics Technician				●			
GS-2210 ¹ IT Management	●	●	●	●	●	●	●

¹ Formerly GS-334 Computer Specialist.

Career Area: Telecommunications**Job Role: Network Communications**

1	Competency: Long Haul Communications	Proficiency:		Level:					Skill Topics:								
<u>Strategic Value:</u> To design and implement communications architectures that utilize long haul communications.	<u>Learning Objectives:</u> Knowledge of and ability to plan, design, implement and provide operational support of long haul communications networks.	Current		Required		E	I	J	S	Ex	<ul style="list-style-type: none">- Strategic and tactical military communications- Transmission modulation techniques- Router and multiplexer technology- Wide Area Network (WAN) transmission- Analog and digital connectivity- Packet switched networks- Communication standards (e.g., X.25, Frame Relay, ATM, FDDI, ISDN, SONET, SMDS)- Satellite communications- PCS						
		0	1	2	3	4	0	1	2	3		4	X	X	X	X	
	<u>Developmental Opportunities:</u> Learning: <ul style="list-style-type: none">- Information Resources Management College, Global Enterprise Networking and Telecommunications (all)- Courses in telecommunications and electrical engineering (all) Work-based: <ul style="list-style-type: none">- Visit field communications sites (all)- Job rotation (all)- Commercial Certification (all)- National Telecommunications and Information Administration (NTIA) procedures and standards (all)	<u>Gap Assessment:</u> _____ - _____ = _____ Required Proficiency - Current Proficiency = Gap <u>Gap Mitigation Strategy:</u>															

Career Area: Telecommunications**Job Role: Network Communications**

2	Competency: Terrestrial Communications	Proficiency:	Level:	Skill Topics:
<u>Strategic Value:</u> <i>To design and implement communications architectures that utilize terrestrial communications.</i>	<u>Learning Objectives:</u> Knowledge of and ability to plan, design, implement and provide operational support of terrestrial communications networks.	Current	Required	E I J S Ex X X X X
	<u>Developmental Opportunities:</u> Learning: - Information Resources Management College, Global Enterprise Networking and Telecommunications (all) - Courses in telecommunications and electrical engineering (all) Work-based: - Visit field communications sites (all) - Job rotation (all) - Commercial Certification (all) - National Telecommunications and Information Administration (NTIA) procedures and standards (all)	<u>Gap Assessment:</u> _____ - _____ = _____ Required Proficiency - Current Proficiency = Gap	<u>Gap Mitigation Strategy:</u>	- Packet switched networks - Communications standards - Encryption - Microwave communications - POTS - Cable, fiberoptic, twisted pair, wireless, laser, infrared and radar media - Operational support - Strategic and tactical military communications - Switched system communications - Life cycle provisioning and support - Subsystem engineering techniques - Switched communications architecture - Navy Working Capital Fund - ILS - Planning, programming and budgeting - Operational configuration management - Operational policy and direction

Career Area: Telecommunications**Job Role: Network Communications**

3	Competency: Telecommunication System Architecture	Proficiency:					Level:					Skill Topics:					
<u>Strategic Value:</u> To implement information transfer/telecommunications requirements into an integrated architecture.	<u>Learning Objectives:</u> Knowledge of and ability to integrate major components of information/telecommunications networks and systems to include an understanding of their functionality, interfaces, associated technology and topology.	Current					Required					<u>E</u>	<u>I</u>	<u>J</u>	<u>S</u>	<u>Ex</u>	<ul style="list-style-type: none">- Telecommunications networks- Mission analysis- Strategic and tactical military communications- Performance planning- Design and functional tradeoffs- Transmission modulation techniques- Operational effectiveness- Acquisition management- Router and multiplexer technology- Switches, Bridges, Hubs
		0	1	2	3	4	0	1	2	3	4	X	X	X	X		
	<u>Developmental Opportunities:</u> Learning: <ul style="list-style-type: none">- Information Resources Management College, Managing Information Architectures and Infrastructures (all)- Information Resources Management College, Critical Information Systems Technologies (all)- Information Resources Management College, Global Enterprise Networking and Telecommunications (all)- Information Resources Management College, The Information Highway (all)- Courses in telecommunications and electrical engineering (all) Work-based: <ul style="list-style-type: none">- Visit field communications sites (all)- Job rotation (all)- Commercial Certification (all)- National Telecommunications and Information Administration (NTIA) procedures and standards (all)	<u>Gap Assessment:</u> _____ - _____ = _____ Required - Current = Gap Proficiency Proficiency <u>Gap Mitigation Strategy:</u>															

Career Area: Telecommunications**Job Role: Network Communications**

4 Competency: Network Design		Proficiency:		Level:					Skill Topics:
		Current	Required	E	I	J	S	Ex	
<u>Strategic Value:</u> <i>To conduct capacity planning for future telecommunications systems and assist customers in network planning, design, modification, and other functions including migration strategy development.</i>	<u>Learning Objectives:</u> Knowledge of and ability to evolve communications networks to achieve greater capacity, improved service and more cost effective operations.	0 1 2 3 4	0 1 2 3 4	X	X	X	X		- Network design - Communication networks - Capacity planning - Strategic and tactical military communications - Migration strategy development - Modeling - Communications-electronic principles
	<u>Developmental Opportunities:</u> Learning: - Information Resources Management College, Global Enterprise Networking and Telecommunications (all) - Courses in telecommunications and electrical engineering (all) Work-based: - Visit field communications sites (all) - Job rotation (all) - Commercial Certification (all) - National Telecommunications and Information Administration (NTIA) procedures and standards (all)	<u>Gap Assessment:</u> _____ - _____ = _____ Required Proficiency - Current Proficiency = Gap <u>Gap Mitigation Strategy:</u>							

Career Area: Telecommunications**Job Role: Network Communications**

5	Competency: Testing Processes and Procedures		Proficiency:		Level:					Skill Topics:
<u>Strategic Value:</u> To ensure a life cycle test and evaluation program is established early in the acquisition process, monitoring implementation and results, and recommending changes.	<u>Learning Objectives:</u> Knowledge of and ability to analyze requirements and develop an appropriate test and evaluation program to assure timely development, production, and fielding of systems and products that meet requirements.	Current	Required	E	I	J	S	Ex	<ul style="list-style-type: none">- Information systems- Commercial off-the-shelf software (COTS)- Government off-the-shelf software (GOTS)- Strategic and tactical military communications- Telecommunications systems and environments- Modeling concepts- Test and evaluation tools- Computer systems- Standards conformance testing- Interoperability certifications- Functionality testing- Security test and evaluation	
			0 1 2 3 4	0 1 2 3 4	X	X	X			
	<u>Developmental Opportunities:</u> Learning: <ul style="list-style-type: none">- Information Resources Management College, Global Enterprise Networking and Telecommunications (all)- Information Resources Management College, Critical Information System Technologies (all)- Courses in telecommunications and electrical engineering (all) Work-based: <ul style="list-style-type: none">- Visit field communications sites (all)- Job rotation (all)- Commercial Certification (all)- National Telecommunications and Information Administration (NTIA) procedures and standards (all)	<u>Gap Assessment:</u> _____ - _____ = _____ Required Proficiency - Current Proficiency = Gap <u>Gap Mitigation Strategy:</u>								

Career Area: Telecommunications**Job Role: Network Communications**

6	Competency: Operational Test & Evaluation (OT&E)	Proficiency:		Level:					Skill Topics:
<u>Strategic Value:</u> To assess a system's operational effectiveness and operational suitability in a realistic environment and to determine if the minimum acceptable operational performance requirements have been satisfied.	<u>Learning Objectives:</u> Knowledge of and ability to analyze operational and technical characteristics, identify critical operational issues, and define, document, implement, execute and report results.	Current	Required	E	I	J	S	Ex	<ul style="list-style-type: none">- Interoperability analysis- Strategic and tactical military communications- Test methodologies- Operational feasibility of proposed additions/modifications- Test plans- Operational environments for systems under testing- Continuous comprehensive evaluation- Telecommunications system testing- Critical operational issues/measures of effectiveness- Programmatic milestone decision support- System performance operational testing and evaluation- System architecture interoperability verification/certification testing
		0 1 2 3 4	0 1 2 3 4	X	X	X	X		
	<u>Developmental Opportunities:</u> Learning: <ul style="list-style-type: none">- Information Resources Management College, Global Enterprise Networking and Telecommunications (all)- Information Resources Management College, Critical Information System Technologies (all)- Courses in telecommunications and electrical engineering (all)- Attend testing conferences, such as ITEA conference (I, J)- Attend courses on test design (E, I) Work-based: <ul style="list-style-type: none">- Visit field communications sites (all)- Job rotation (all)- Commercial Certification (all)- National Telecommunications and Information Administration (NTIA) procedures and standards (all)- Evaluation metrics used at other sites (all)	<u>Gap Assessment:</u> _____ - _____ = _____ Required Proficiency - Current Proficiency = Gap					<u>Gap Mitigation Strategy:</u>		

Career Area: Telecommunications**Job Role: Network Communications**

7	Competency: Program Management	Proficiency:	Level:	Skill Topics:
<u>Strategic Value:</u> <i>To achieve the needed outcomes of a specific program and related projects by ensuring proper management, performance and administration.</i>	<u>Learning Objectives:</u> Knowledge of the required outcomes, functional and political environments, organizations, activities, and constraints affecting a program. Knowledge of project definition and the ability to: relate required results and costs; lead teams that include members not in one's chain of command; apply systematic thinking to develop action plans; develop approaches to satisfy requirements and resolve issues; and ensure overall project quality. A PM has the knowledge and ability to coordinate the work of assigned staff and other functional experts matrixed to support the task.	Current 0 1 2 3 4	Required 0 1 2 3 4	E I J S Ex X X X
	<u>Developmental Opportunities:</u> Learning: - Information Resources Management College: (J, S) --Information Management Planning --Information Technology Acquisition for the CIO --IT Project Management - STAR Program (all) - DAWIA (all) Work-based: - Serve as Contracting Officer's Representative (J, S) - Serve as project engineer or project manager (J)	<u>Gap Assessment:</u> _____ - _____ = _____ Required Current Proficiency Proficiency Gap		
		<u>Gap Mitigation Strategy:</u>		

Career Area: Telecommunications**Job Role: Network Communications**

8	Competency: Contracting Officers Representative (COR)		Proficiency:		Level:					Skill Topics:
			Current	Required	E	I	J	S	Ex	
<u>Strategic Value:</u> <i>To ensure contractor performance and delivery is in compliance with a given contract.</i>	<u>Learning Objectives:</u> Knowledge of and ability to make technical decisions within the scope of the contract/task; serve as the day-to-day point of contact for contractual matters; assess the technical quality of performed work; approve deliverables for acceptance.		0 1 2 3 4	0 1 2 3 4		X	X	X		- Deliverable item review and approval - Contract types (e.g., IDIQ, cost reimbursable, time and materials, firm fixed price) - Cost reporting - Contract rates - Delivery orders - Other direct costs (ODCs) - Contract Line Items (CLINs) - Contract milestones - Life cycle management - Statements of Work (SOW) - Contract options
	<u>Developmental Opportunities:</u> Learning: - STAR Program (all) - DAWIA (all)	<u>Gap Assessment:</u> <div style="text-align: center;"> _____ - _____ = _____ Required Proficiency - Current Proficiency = Gap </div> <u>Gap Mitigation Strategy:</u>								

Career Area: Telecommunications**Job Role: Network Communications**

9	Competency: Information Assurance	Proficiency:		Level:					Skill Topics:
<u>Strategic Value:</u> To acquire, maintain and ensure the security of information systems in an effective, interoperable, scalable, reliable, integrated and affordable fashion.	<u>Learning Objectives:</u> Knowledge of and ability to apply physical access controls, technical security countermeasures, classification and safeguarding of controlled information and operational & industrial security. Ability to validate that appropriate countermeasures are being integrated correctly into program and to ensure that assurance evidence that demonstrates that the system is secure are produced.	Current	Required	E	I	J	S	Ex	<ul style="list-style-type: none">- Information Systems Security- National Level IM/IT Policy- Trusted Systems- Discretionary and Mandatory Access Control- Identification and Authentication- Common criteria, DITSCAP- Assurance Evidence
		0 1 2 3 4	0 1 2 3 4	X	X	X	X	X	
	<u>Developmental Opportunities:</u> Learning: - NETg Technical Training Courses (all) Work-based: - Partnering with Industry (all) - Visit field communications sites (all) - Job rotation (all) - Commercial Certification (all)	<u>Gap Assessment:</u> _____ - _____ = _____ Required Proficiency - Current Proficiency = Gap <u>Gap Mitigation Strategy:</u>							

Career Area: Telecommunications**Job Role: Network Communications Engineering**

1	Competency: Long Haul Communications	Proficiency:	Level:	Skill Topics:
<u>Strategic Value:</u> <i>To design and implement communications architectures that utilize long haul communications.</i>	<u>Learning Objectives:</u> Knowledge of and ability to plan, design, implement and provide operational support of long haul communications networks.	Current	Required	<u>E</u> <u>I</u> <u>J</u> <u>S</u> <u>Ex</u> - Strategic and tactical military communications - Transmission modulation techniques - Router and multiplexer technology - Wide Area Network (WAN) transmission - Analog and digital connectivity - Packet switched networks - Communication standards (e.g., X.25, Frame Relay, ATM, FDDI, ISDN, SONET, SMDS)
	<u>Developmental Opportunities:</u> Learning: - Information Resources Management College, Global Enterprise Networking and Telecommunications (all) - Courses in telecommunications and electrical engineering (all) Work-based: - Visit field communications sites (all) - Job rotation (all) - Commercial Certification (all) - National Telecommunications and Information Administration (NTIA) procedures and standards (all)	0 1 2 3 4	0 1 2 3 4	
		<u>Gap Assessment:</u> _____ - _____ = _____ Required Proficiency - Current Proficiency = Gap		<u>Gap Mitigation Strategy:</u>

Career Area: Telecommunications**Job Role: Network Communications Engineering**

2	Competency: Terrestrial Communications	Proficiency:		Level:					Skill Topics:
<u>Strategic Value:</u> To design and implement communications architectures that utilize terrestrial communications.	<u>Learning Objectives:</u> Knowledge of and ability to plan, design, implement and provide operational support of terrestrial communications networks.	Current	Required	E	I	J	S	Ex	<ul style="list-style-type: none">- Packet switched networks- Communications standards- Encryption- Microwave communications- POTS- Cable, fiberoptic, twisted pair, wireless, laser, infrared and radar media- Operational support- Strategic and tactical military communications- Switched system communications- Life cycle provisioning and support- Subsystem engineering techniques- Switched communications architecture- Navy Working Capital Fund- ILS- Planning, programming and budgeting- Operational configuration management- Operational policy and direction
		0 1 2 3 4	0 1 2 3 4	X	X	X	X		
	<u>Developmental Opportunities:</u> Learning: <ul style="list-style-type: none">- Information Resources Management College, Global Enterprise Networking and Telecommunications (all)- Courses in telecommunications and electrical engineering (all) Work-based: <ul style="list-style-type: none">- Visit field communications sites (all)- Job rotation (all)- Commercial Certification (all)- National Telecommunications and Information Administration (NTIA) procedures and standards (all)	<u>Gap Assessment:</u> _____ - _____ = _____ Required Proficiency - Current Proficiency = Gap <u>Gap Mitigation Strategy:</u> 							

Career Area: Telecommunications**Job Role: Network Communications Engineering**

3	Competency: Satellite Communications	Proficiency:		Level:					Skill Topics:
<u>Strategic Value:</u> To design and implement communications architectures that utilize satellite communications and to operate maintain and procure systems that meet the DON satellite needs.	<u>Learning Objectives:</u> Knowledge of and ability to plan, design, implement and provide operational support of satellite communications networks.	Current	Required	E	I	J	S	Ex	<ul style="list-style-type: none">- Satellite frequency bands- Bandwidth control procedures- Terminal technical specifications- Satellite onboard management- Voice, video and data communications systems and transmit/receive interface requirements with satellite systems- Encoding techniques, encryption devices, forward error correction techniques- Satellite tracking systems- Capacity planning- Scenarios- Power levels- Data rates- Satellite frequency approval- Global satellite constellations- Operational requirements- Satellite systems engineering and site planning- Operation of Earth and Space terminals- Strategic and tactical parameters of terminals
		0 1 2 3 4	0 1 2 3 4	X	X	X	X		
	<u>Developmental Opportunities:</u> Learning: <ul style="list-style-type: none">- Information Resources Management College, Global Enterprise Networking and Telecommunications (all)- Courses in telecommunications and electrical engineering (all) Work-based: <ul style="list-style-type: none">- Visit field communications sites (all)- Job rotation (all)- Commercial Certification (all)- National Telecommunications and Information Administration (NTIA) procedures and standards (all)	<u>Gap Assessment:</u> _____ - _____ = _____ Required Proficiency - Current Proficiency = Gap <u>Gap Mitigation Strategy:</u>							

Career Area: Telecommunications**Job Role: Network Communications Engineering**

4	Competency: Transmission Systems Engineering	Proficiency:		Level:					Skill Topics:
<u>Strategic Value:</u> To plan, program, budget, acquire, integrate and provide life cycle management of leased and government owned transmission subsystems.	<u>Learning Objectives:</u> Knowledge of and ability to manage and operate telecommunications transmission systems to include multiplexing techniques.	Current	Required	E	I	J	S	Ex	<ul style="list-style-type: none">- Transmission/transport system leasing and acquisition- Strategic and tactical military communications- Terrestrial communications- Satellite communications networks- Router multiplexing techniques- Problem analysis and resolution- Commercial, Federal and Military standards for transmission facilities- Telephone, video, RF and microwave systems- Frequency management- ILS- Planning, programming and budgeting- Network management- Circuit and trunk allocation and engineering- Configuration/change management
		0 1 2 3 4	0 1 2 3 4	X	X	X	X		
	<u>Developmental Opportunities:</u> Learning: <ul style="list-style-type: none">- Information Resources Management College, Global Enterprise Networking and Telecommunications (all)- Courses in telecommunications and electrical engineering (all) Work-based: <ul style="list-style-type: none">- Visit field communications sites (all)- Job rotation (all)- Commercial Certification (all)- National Telecommunications and Information Administration (NTIA) procedures and standards (all)	<u>Gap Assessment:</u> _____ - _____ = _____ Required Proficiency - Current Proficiency = Gap <u>Gap Mitigation Strategy:</u>							

Career Area: Telecommunications**Job Role: Network Communications Engineering**

5	Competency: Telecommunication System Architecture		Proficiency:		Level:					Skill Topics:
<u>Strategic Value:</u> To implement information transfer/telecommunications requirements into an integrated architecture.	<u>Learning Objectives:</u> Knowledge of and ability to integrate major components of information/telecommunications networks and systems to include an understanding of their functionality, interfaces, associated technology and topology.	Current 0 1 2 3 4	Required 0 1 2 3 4	E X	I X	J X	S X	Ex 	<ul style="list-style-type: none">- Telecommunications networks- Mission analysis- Strategic and tactical military communications- Performance planning- Design and functional tradeoffs- Transmission modulation techniques- Operational effectiveness- Acquisition management- Router and multiplexer technology- Switches, Bridges, Hubs- Network operating systems	
	<u>Developmental Opportunities:</u> Learning: <ul style="list-style-type: none">- Information Resources Management College, Managing Information Architectures and Infrastructures (all)- Information Resources Management College, Critical Information Systems Technologies (all)- Information Resources Management College, Global Enterprise Networking and Telecommunications (all)- Information Resources Management College, The Information Highway (all)- Courses in telecommunications and electrical engineering (all) Work-based: <ul style="list-style-type: none">- Visit field communications sites (all)- Job rotation (all)- Commercial Certification (all)- National Telecommunications and Information Administration (NTIA) procedures and standards (all)	<u>Gap Assessment:</u> _____ - _____ = _____ Required Proficiency - Current Proficiency = Gap <u>Gap Mitigation Strategy:</u>								

Career Area: Telecommunications**Job Role: Network Communications Engineering**

6	Competency: Network Design	Proficiency:		Level:					Skill Topics:		
	<u>Strategic Value:</u> To conduct capacity planning for future telecommunications systems and assist customers in network planning, design, modification, and other functions including migration strategy development.	<u>Learning Objectives:</u> Knowledge of and ability to evolve communications networks to achieve greater capacity, improved service and more cost effective operations.		Current	Required	E	I	J	S	Ex	<ul style="list-style-type: none">- Network design- Communication networks- Capacity planning- Strategic and tactical military communications- Migration strategy development- Modeling- Communications-electronic principles
		0 1 2 3 4	0 1 2 3 4	X	X	X	X				
	<u>Developmental Opportunities:</u> Learning: <ul style="list-style-type: none">- Information Resources Management College, Global Enterprise Networking and Telecommunications (all)- Information Resources Management College, Critical Information System Technologies (all)- Courses in telecommunications and electrical engineering (all) Work-based: <ul style="list-style-type: none">- Visit field communications sites (all)- Job rotation (all)- Commercial Certification (all)- National Telecommunications and Information Administration (NTIA) procedures and standards (all)	<u>Gap Assessment:</u> _____ - _____ = _____ Required Proficiency - Current Proficiency = Gap <u>Gap Mitigation Strategy:</u>									

Career Area: Telecommunications**Job Role: Network Communications Engineering**

7	Competency: Testing Processes and Procedures		Proficiency:		Level:					Skill Topics:										
			Current	Required	E	I	J	S	Ex											
<u>Strategic Value:</u> To ensure a life cycle test and evaluation program is established early in the acquisition process, monitoring implementation and results, and recommending changes.			<u>Learning Objectives:</u> Knowledge of and ability to analyze requirements and develop an appropriate test and evaluation program to assure timely development, production, and fielding of systems and products that meet requirements.		0	1	2	3	4	0	1	2	3	4	X	X	X			- Information systems - Commercial off-the-shelf software (COTS) - Government off-the-shelf software (GOTS) - Strategic and tactical military communications - Telecommunications systems and environments - Modeling concepts - Test and evaluation tools - Computer systems - Standards conformance testing - Interoperability certifications - Functionality testing - Security test and evaluation
<u>Developmental Opportunities:</u> Learning: - Information Resources Management College, Global Enterprise Networking and Telecommunications (all) - Information Resources Management College, Critical Information System Technologies (all) - Courses in telecommunications and electrical engineering (all) Work-based: - Visit field communications sites (all) - Job rotation (all) - Commercial Certification (all) - National Telecommunications and Information Administration (NTIA) procedures and standards (all)			<u>Gap Assessment:</u> _____ - _____ = _____ Required Proficiency - Current Proficiency = Gap <u>Gap Mitigation Strategy:</u>																	

Career Area: Telecommunications**Job Role: Network Communications Engineering**

8	Competency: Operational Test & Evaluation (OT&E)	Proficiency:	Level:	Skill Topics:
<u>Strategic Value:</u> <i>To assess a system's operational effectiveness and operational suitability in a realistic environment and to determine if the minimum acceptable operational performance requirements have been satisfied.</i>	<u>Learning Objectives:</u> Knowledge of and ability to analyze operational and technical characteristics, identify critical operational issues, and define, document, implement, execute and report results.	Current	Required	E I J S Ex
	<u>Developmental Opportunities:</u> Learning: - Information Resources Management College, Global Enterprise Networking and Telecommunications (all) - Information Resources Management College, Critical Information System Technologies (all) - Courses in telecommunications and electrical engineering (all) - Attend testing conferences, such as ITEA conference (I, J) - Attend courses on test design (E,I) Work-based: - Visit field communications sites (all) - Job rotation (all) - Commercial Certification (all) - National Telecommunications and Information Administration (NTIA) procedures and standards (all) - Evaluation metrics used at other sites (all)	0 1 2 3 4	0 1 2 3 4	X X X X
		Required Proficiency	Current Proficiency	= Gap

- Interoperability analysis
- Strategic and tactical military communications
- Test methodologies
- Operational feasibility of proposed additions/modifications
- Test plans
- Operational environments for systems under testing
- Continuous comprehensive evaluation
- Telecommunications system testing
- Critical operational issues/measures of effectiveness
- Programmatic milestone decision support
- System performance operational testing and evaluation
- System architecture interoperability verification/certification testing

Career Area: Telecommunications**Job Role: Network Communications Engineering**

9	Competency: Developmental Test & Evaluation (DT&E)	Proficiency:		Level:					Skill Topics:
<u>Strategic Value:</u> To promote the development and acceptance of information systems to meet stakeholder requirements; to promote compliance with standards; to promote interoperability of standards compliant products in support of DON acquisition.	<u>Learning Objectives:</u> Knowledge of and ability to analyze the technical characteristics, identify critical technical issues and design, implement, execute and report results.	Current	Required	E	I	J	S	Ex	<div>- DT&E</div> <div>- Requirements and developmental analysis</div> <div>- Test coverage performance metrics</div> <div>- Quality assurance</div> <div>- Performance assurance</div> <div>- Product assurance</div> <div>- Standards conformance testing</div> <div>- Interoperability certification</div> <div>- Security testing</div> <div>- IV&V</div>
		0 1 2 3 4	0 1 2 3 4	X	X	X	X		
	<u>Developmental Opportunities:</u> Learning: <div>- Information Resources Management College, Global Enterprise Networking and Telecommunications (all)</div> <div>- Information Resources Management College, Critical Information System Technologies (all)</div> <div>- Courses in telecommunications and electrical engineering (all)</div> <div>- Attend testing conferences, such as ITEA conference (I, J)</div> <div>- Attend courses on test design (E, I)</div> Work-based: <div>- Visit field communications sites (all)</div> <div>- Job rotation (all)</div> <div>- Commercial Certification (all)</div> <div>- National Telecommunications and Information Administration (NTIA) procedures and standards (all)</div>	<u>Gap Assessment:</u> <div><div></div> - <div></div> = <div></div></div> <div>Required Proficiency - Current Proficiency = Gap</div> <u>Gap Mitigation Strategy:</u>							

Career Area: Telecommunications**Job Role: Network Communications Engineering**

10	Competency: Integrated Verification & Validation (IV&V)	Proficiency:		Level:					Skill Topics:
<u>Strategic Value:</u> To determine which system characteristics can be verified by analysis or simulation and which must be verified by demonstration and testing; to assess the progress being made in development and migration efforts prior to validation (including IV&V).	<u>Learning Objectives:</u> Knowledge of and ability to provide formal verification and validation of required system performance characteristics.	Current	Required	E	I	J	S	Ex	<div>- IV&V processes</div> <div>- Formal test and evaluation</div> <div>- Continuous comprehensive evaluation</div> <div>- Data collection and analysis</div> <div>- Computer products and services analysis</div> <div>- Telecom performance inspectio</div>
		0 1 2 3 4	0 1 2 3 4	X	X	X	X		
	<u>Developmental Opportunities:</u> Learning: <div>- Information Resources Management College, Global Enterprise Networking and Telecommunications (all)</div> <div>- Information Resources Management College, Critical Information System Technologies (all)</div> <div>- Courses in telecommunications and electrical engineering (all)</div> <div>- Attend testing conferences (I, J, S)</div> Work-based: <div>- Visit field communications sites (all)</div> <div>- Job rotation (all)</div> <div>- Commercial Certification (all)</div> <div>- National Telecommunications and Information Administration (NTIA) procedures and standards (all)</div> <div>- Participate in IV&V testing (E, I)</div>	<u>Gap Assessment:</u> _____ - _____ = _____ Required Proficiency - Current Proficiency = Gap <u>Gap Mitigation Strategy:</u>							

Career Area: Telecommunications**Job Role: Network Communications Engineering**

11	Competency: Program Management	Proficiency:		Level:					Skill Topics:
<u>Strategic Value:</u> To achieve the needed outcomes of a specific program and related projects by ensuring proper management, performance and administration.	<u>Learning Objectives:</u> Knowledge of the required outcomes, functional and political environments, organizations, activities, and constraints affecting a program. Knowledge of project definition and the ability to: relate required results and costs; lead teams that include members not in one's chain of command; apply systematic thinking to develop action plans; develop approaches to satisfy requirements and resolve issues; and ensure overall project quality. A PM has the knowledge and ability to coordinate the work of assigned staff and other functional experts matrixed to support the task.	Current	Required	E	I	J	S	Ex	- Program strategic planning - Program role in organization/enterprise - Visionary leadership - Performance assessment - Project integration management - Quality management - Risk management - Financial management
		0 1 2 3 4	0 1 2 3 4			X	X	X	
	<u>Developmental Opportunities:</u> Learning: - Information Resources Management College: (J, S) --Information Management Planning --Information Technology Acquisition for the CIO --IT Project Management - STAR Program (all) - DAWIA (all) Work-based: - Serve as Contracting Officer's Representative (J, S) - Serve as project engineer or project manager (J)	<u>Gap Assessment:</u> _____ - _____ = _____ Required Proficiency - Current Proficiency = Gap <u>Gap Mitigation Strategy:</u>							

Career Area: Telecommunications**Job Role: Network Communications Engineering**

12	Competency: Contracting Officers Representative (COR)		Proficiency:		Level:					Skill Topics:											
			Current	Required	E	I	J	S	Ex												
<u>Strategic Value:</u> <i>To ensure contractor performance and delivery is in compliance with a given contract.</i>			<u>Learning Objectives:</u> Knowledge of and ability to make technical decisions within the scope of the contract/task; serve as the day-to-day point of contact for contractual matters; assess the technical quality of performed work; approve deliverables for acceptance.		0	1	2	3	4	0	1	2	3	4							- Deliverable item review and approval - Contract types (e.g., IDIQ, cost reimbursable, time and materials, firm fixed price) - Cost reporting - Contract rates - Delivery orders - Other direct costs (ODCs) - Contract Line Items (CLINs) - Contract milestones - Life cycle management - Statements of Work (SOW) - Contract options
<u>Developmental Opportunities:</u> Learning: - STAR Program (all) - DAWIA (all)			<u>Gap Assessment:</u> _____ - _____ = _____ Required Proficiency - Current Proficiency = Gap <u>Gap Mitigation Strategy:</u>																		

Career Area: Telecommunications**Job Role: Network Communications Engineering**

13	Competency: Information Assurance	Proficiency:		Level:					Skill Topics:
<u>Strategic Value:</u> To acquire, maintain and ensure the security of information systems in an effective, interoperable, scalable, reliable, integrated and affordable fashion.	<u>Learning Objectives:</u> Knowledge of and ability to apply physical access controls, technical security countermeasures, classification and safeguarding of controlled information and operational & industrial security. Ability to validate that appropriate countermeasures are being integrated correctly into program and to ensure that assurance evidence that demonstrates that the system is secure are produced.	Current	Required	E	I	J	S	Ex	- Information Systems Security - National Level IM/IT Policy - Trusted Systems - Discretionary and Mandatory Access Control - Identification and Authentication - Common criteria, DITSCAP - Assurance Evidence
		0 1 2 3 4	0 1 2 3 4	X	X	X	X	X	
	<u>Developmental Opportunities:</u> Learning: - NETg Technical Training Courses (all) Work-based: - Partnering with Industry (all) - Visit field communications sites (all) - Job rotation (all) - Commercial Certification (all)	<u>Gap Assessment:</u> _____ - _____ = _____ Required Proficiency - Current Proficiency = Gap <u>Gap Mitigation Strategy:</u>							

Career Area: Telecommunications**Job Role: Network Management**

1	Competency: Network Management	Proficiency:		Level:					Skill Topics:
<u>Strategic Value:</u> To provide applications and network services to users, as well as to install and manage those applications and services.	<u>Learning Objectives:</u> Knowledge of and ability to install and manage network operating systems, printing services, and implement network applications and networks in multivendor environments.	Current	Required	E	I	J	S	Ex	<ul style="list-style-type: none">- Network management- Systems administration- Telecommunications networks- Strategic and tactical military communications- Media characteristics- Policy and resource constraints- Integrated Logistics Support (ILS)- Site survey- Facility management- Configuration management- Provisioning policy- Trunk and circuit allocation and engineering process
		0 1 2 3 4	0 1 2 3 4	X	X	X			
	<u>Developmental Opportunities:</u> Learning: <ul style="list-style-type: none">- Information Resources Management College, Global Enterprise Networking and Telecommunications (all)- Information Resources Management College, Critical Information System Technologies (all)- Courses in telecommunications and electrical engineering (all)- Attend network operations course (E, I) Work-based: <ul style="list-style-type: none">- Visit field communications sites (all)- Job rotation (all)- Commercial Certification (all)- National Telecommunications and Information Administration (NTIA) procedures and standards (all)- Work as network administrator for operational session (I, J)	<u>Gap Assessment:</u> _____ - _____ = _____ Required Proficiency - Current Proficiency = Gap <u>Gap Mitigation Strategy:</u>							

Career Area: Telecommunications**Job Role: Network Management**

2	Competency: Terrestrial Communications	Proficiency:	Level:	Skill Topics:
<u>Strategic Value:</u> <i>To design and implement communications architectures that utilize terrestrial communications.</i>	<u>Learning Objectives:</u> Knowledge of and ability to plan, design, implement and provide operational support of terrestrial communications networks.	Current	Required	E I J S Ex X X X X
	<u>Developmental Opportunities:</u> Learning: - Information Resources Management College, Global Enterprise Networking and Telecommunications (all) - Courses in telecommunications and electrical engineering (all) Work-based: - Visit field communications sites (all) - Job rotation (all) - Commercial Certification (all) - National Telecommunications and Information Administration (NTIA) procedures and standards (all)	<u>Gap Assessment:</u> _____ - _____ = _____ Required Proficiency - Current Proficiency = Gap	<u>Gap Mitigation Strategy:</u>	- Packet switched networks - Communications standards - Encryption - Microwave communications - POTS - Cable, fiberoptic, twisted pair, wireless, laser, infrared and radar media - Operational support - Strategic and tactical military communications - Switched system communications - Life cycle provisioning and support - Subsystem engineering techniques - Switched communications architecture - Navy Working Capital Fund - ILS - Planning, programming and budgeting - Operational configuration management - Operational policy and direction

Career Area: Telecommunications**Job Role: Network Management**

3	Competency: Configuration Management		Proficiency:		Level:					Skill Topics:
<u>Strategic Value:</u> To provide positive control of system configuration to ensure system interoperability.	<u>Learning Objectives:</u> Knowledge of and ability to provide technical and administrative direction and surveillance to formally document and control the functional and physical characteristics of a system, network or product, including its requirements, design, software, hardware, documentation and release during the system's life cycle.	Current	Required	E	I	J	S	Ex	<ul style="list-style-type: none">- Configuration management and control methods and procedures- Change management process- Development management- Implementation management- Telecommunications systems- Strategic and tactical military communications- Mission support software- Operational concepts	
		0 1 2 3 4	0 1 2 3 4	X	X	X	X			
	<u>Developmental Opportunities:</u> Learning: <ul style="list-style-type: none">- Information Resources Management College, Global Enterprise Networking and Telecommunications (all)- Information Resources Management College, Critical Information System Technologies (all)- Courses in telecommunications and electrical engineering (all)- Attend formal CM training (E, I)- Attend CM conferences (I, J, S) Work-based: <ul style="list-style-type: none">- Visit field communications sites (all)- Job rotation (all)- Commercial Certification (all)- National Telecommunications and Information Administration (NTIA) procedures and standards (all)- Participate in writing of CM plan (I, J)- Participate in a CM audit (I, J)- Serve on a configuration control board (I, J)- Attend a CCB meeting (E)	<u>Gap Assessment:</u> _____ - _____ = _____ Required - Current = Gap Proficiency Proficiency <u>Gap Mitigation Strategy:</u>								

Career Area: Telecommunications**Job Role: Network Management**

4	Competency: Telecommunication System Architecture	Proficiency:	Level:	Skill Topics:
<u>Strategic Value:</u> <i>To implement information transfer/telecommunications requirements into an integrated architecture.</i>	<u>Learning Objectives:</u> Knowledge of and ability to integrate major components of information/telecommunications networks and systems to include an understanding of their functionality, interfaces, associated technology and topology.	Current	Required E I J S Ex	- Telecommunications networks - Mission analysis - Strategic and tactical military communications - Performance planning - Planning, design and functional tradeoffs - Transmission modulation techniques - Operational effectiveness - Acquisition management - Router and multiplexer technology - Network operating systems
	<u>Developmental Opportunities:</u> Learning: - Information Resources Management College, Managing Information Architectures and Infrastructures (all) - Information Resources Management College, Critical Information Systems Technologies (all) - Information Resources Management College, Global Enterprise Networking and Telecommunications (all) - Information Resources Management College, The Information Highway (all) - Courses in telecommunications and electrical engineering (all) Work-based: - Visit field communications sites (all) - Job rotation (all) - Commercial Certification (all) - National Telecommunications and Information Administration (NTIA) procedures and standards (all)	0 1 2 3 4 0 1 2 3 4	X X X X X X X X	
		<u>Gap Assessment:</u> _____ - _____ = _____ Required Proficiency - Current Proficiency = Gap <u>Gap Mitigation Strategy:</u>		

Career Area: Telecommunications**Job Role: Network Management**

5	Competency: Network Design	Proficiency:					Level:					Skill Topics:					
<u>Strategic Value:</u> To conduct capacity planning for future telecommunications systems and assist customers in network planning, design, modification, and other functions including migration strategy development.	<u>Learning Objectives:</u> Knowledge of and ability to evolve communications networks to achieve greater capacity, improved service and more cost effective operations.	Current					Required					E	I	J	S	Ex	- Network design - Communication networks - Capacity planning - Strategic and tactical military communications - Migration strategy development - Modeling - Communications-electronic principles
		0	1	2	3	4	0	1	2	3	4	X	X	X	X		
	<u>Developmental Opportunities:</u> Learning: - Information Resources Management College, Global Enterprise Networking and Telecommunications (all) - Courses in telecommunications and electrical engineering (all) Work-based: - Visit field communications sites (all) - Job rotation (all) - Commercial Certification (all) - National Telecommunications and Information Administration (NTIA) procedures and standards (all)	<u>Gap Assessment:</u> _____ - _____ = _____ Required Proficiency - Current Proficiency = Gap <u>Gap Mitigation Strategy:</u>															

Career Area: Telecommunications**Job Role: Network Management**

6	Competency: Quality Assurance	Proficiency:		Level:					Skill Topics:
<u>Strategic Value:</u> To design, develop and deploy high quality telecommunications systems by employing tools and methods that manage the system evolution.	<u>Learning Objectives:</u> Knowledge of and ability to apply principles, methods and tools of quality assurance; includes translating functional requirements into technical requirements used for logical design or presenting alternative technologies or approaches.	Current	Required	E	I	J	S	Ex	<ul style="list-style-type: none">- Stakeholder requirements- Testing processes and procedures- OT&E- DT&E- IV&V- Performance measurement- Software metrics- Design reviews
		0 1 2 3 4	0 1 2 3 4	X	X	X	X		
	<u>Developmental Opportunities:</u> Learning: <ul style="list-style-type: none">- Information Resources Management College, Global Enterprise Networking and Telecommunications (all)- Information Resources Management College, Critical Information System Technologies (all)- Courses in telecommunications and electrical engineering (all)- Center for Quality Management courses (all) Work-based: <ul style="list-style-type: none">- Visit field communications sites (all)- Job rotation (all)- Commercial Certification (all)- National Telecommunications and Information Administration (NTIA) procedures and standards (all)	<u>Gap Assessment:</u> _____ - _____ = _____ Required Proficiency - Current Proficiency = Gap <u>Gap Mitigation Strategy:</u>							

Career Area: Telecommunications**Job Role: Network Management**

7	Competency: Testing Processes and Procedures		Proficiency:		Level:					Skill Topics:
			Current	Required	E	I	J	S	Ex	
Strategic Value: <i>To ensure a life cycle test and evaluation program is established early in the acquisition process, monitoring implementation and results, and recommending changes.</i>	Learning Objectives: Knowledge of and ability to analyze requirements and develop an appropriate test and evaluation program to assure timely development, production, and fielding of systems and products that meet requirements.		0 1 2 3 4	0 1 2 3 4	X	X	X			- Commercial off-the-shelf software (COTS) - Government off-the-shelf software (GOTS) - Strategic and tactical military communications - Telecommunications systems and environments - Modeling concepts - Test and evaluation tools - Standards conformance testing - Interoperability certifications - Functionality testing - Security test and evaluation
	Developmental Opportunities: Learning: - Information Resources Management College, Global Enterprise Networking and Telecommunications (all) - Information Resources Management College, Critical Information System Technologies (all) - Courses in telecommunications and electrical engineering (all) Work-based: - Visit field communications sites (all) - Job rotation (all) - Commercial Certification (all) - National Telecommunications and Information Administration (NTIA) procedures and standards (all)	Gap Assessment: <div style="text-align: center;"> _____ - _____ = _____ Required Proficiency - Current Proficiency = Gap </div> Gap Mitigation Strategy:								

Career Area: Telecommunications**Job Role: Network Management**

8	Competency: Operational Test & Evaluation (OT&E)	Proficiency:		Level:					Skill Topics:
<p><u>Strategic Value:</u></p> <p>To assess a system's operational effectiveness and operational suitability in a realistic environment and to determine if the minimum acceptable operational performance requirements have been satisfied.</p>	<p><u>Learning Objectives:</u></p> <p>Knowledge of and ability to analyze operational and technical characteristics, identify critical operational issues, and define, document, implement, execute and report results.</p>	Current	Required	E	I	J	S	Ex	<p>- Interoperability analysis</p> <p>- Strategic and tactical military communications</p> <p>- Test methodologies</p> <p>- Operational feasibility of proposed additions/modifications</p> <p>- Test plans</p> <p>- Operational environments for systems under testing</p> <p>- Continuous comprehensive evaluation</p> <p>- Telecommunications system testing</p> <p>- Critical operational issues/measures of effectiveness</p> <p>- Programmatic milestone decision support</p> <p>- System performance operational testing and evaluation</p> <p>- System architecture interoperability verification/certification testing</p>
	<p><u>Developmental Opportunities:</u></p> <p>Learning:</p> <ul style="list-style-type: none">- Information Resources Management College, Global Enterprise Networking and Telecommunications (all)- Information Resources Management College, Critical Information System Technologies (all)- Courses in telecommunications and electrical engineering (all)- Attend testing conferences, such as ITEA conference (I, J)- Attend courses on test design (E, I) <p>Work-based:</p> <ul style="list-style-type: none">- Visit field communications sites (all)- Job rotation (all)- Commercial Certification (all)- National Telecommunications and Information Administration (NTIA) procedures and standards (all)- Evaluation metrics used at other sites (all)	<p><u>Gap Assessment:</u></p> <p>_____ - _____ = _____</p> <p>Required Proficiency - Current Proficiency = Gap</p> <p><u>Gap Mitigation Strategy:</u></p>							

Career Area: Telecommunications**Job Role: Network Management**

9	Competency: Program Management	Proficiency:	Level:	Skill Topics:
<u>Strategic Value:</u> <i>To achieve the needed outcomes of a specific program and related projects by ensuring proper management, performance and administration.</i>	<u>Learning Objectives:</u> Knowledge of the required outcomes, functional and political environments, organizations, activities, and constraints affecting a program. Knowledge of project definition and the ability to: relate required results and costs; lead teams that include members not in one's chain of command; apply systematic thinking to develop action plans; develop approaches to satisfy requirements and resolve issues; and ensure overall project quality. A PM has the knowledge and ability to coordinate the work of assigned staff and other functional experts matrixed to support the task.	Current 0 1 2 3 4	Required 0 1 2 3 4	E I J S Ex X X X
	<u>Developmental Opportunities:</u> Learning: - Information Resources Management College: (J, S) --Information Management Planning --Information Technology Acquisition for the CIO --IT Project Management - STAR Program (all) - DAWIA (all) Work-based: - Serve as Contracting Officer's Representative (J, S) - Serve as project engineer or project manager (J)	<u>Gap Assessment:</u> _____ - _____ = _____ Required Current Proficiency Proficiency Gap		
		<u>Gap Mitigation Strategy:</u>		

Career Area: Telecommunications**Job Role: Network Management**

10	Competency: Contracting Officers Representative (COR)		Proficiency:		Level:					Skill Topics:											
			Current	Required	E	I	J	S	Ex												
<u>Strategic Value:</u> <i>To ensure contractor performance and delivery is in compliance with a given contract.</i>			<u>Learning Objectives:</u> Knowledge of and ability to make technical decisions within the scope of the contract/task; serve as the day-to-day point of contact for contractual matters; assess the technical quality of performed work; approve deliverables for acceptance.		0	1	2	3	4	0	1	2	3	4							- Deliverable item review and approval - Contract types (e.g., IDIQ, cost reimbursable, time and materials, firm fixed price) - Cost reporting - Contract rates - Delivery orders - Other direct costs (ODCs) - Contract Line Items (CLINs) - Contract milestones - Life cycle management - Statements of Work (SOW) - Contract options
<u>Developmental Opportunities:</u> Learning: - STAR Program (all) - DAWIA (all)			<u>Gap Assessment:</u> _____ - _____ = _____ Required Proficiency - Current Proficiency = Gap <u>Gap Mitigation Strategy:</u>																		

Career Area: Telecommunications**Job Role: Network Management**

11	Competency: Information Assurance	Proficiency:		Level:					Skill Topics:
<u>Strategic Value:</u> To acquire, maintain and ensure the security of information systems in an effective, interoperable, scalable, reliable, integrated and affordable fashion.	<u>Learning Objectives:</u> Knowledge of and ability to apply physical access controls, technical security countermeasures, classification and safeguarding of controlled information and operational & industrial security. Ability to validate that appropriate countermeasures are being integrated correctly into program and to ensure that assurance evidence that demonstrates that the system is secure are produced.	Current	Required	E	I	J	S	Ex	- Information Systems Security - National Level IM/IT Policy - Trusted Systems - Discretionary and Mandatory Access Control - Identification and Authentication - Common criteria, DITSCAP - Assurance Evidence
		0 1 2 3 4	0 1 2 3 4	X	X	X	X	X	
	<u>Developmental Opportunities:</u> Learning: - NETg Technical Training Courses (all) Work-based: - Partnering with Industry (all) - Visit field communications sites (all) - Job rotation (all) - Commercial Certification (all)	<u>Gap Assessment:</u> _____ - _____ = _____ Required Proficiency - Current Proficiency = Gap <u>Gap Mitigation Strategy:</u>							

Career Area: Telecommunications**Job Role: Network Operations**

1	Competency: Network Operations	Proficiency:		Level:					Skill Topics:
<u>Strategic Value:</u> To provide applications and network services to users, as well as to install and manage those applications and services.	<u>Learning Objectives:</u> Knowledge of and ability to install and manage network operating systems, printing services, and implement network applications and networks in multivendor environments.	Current	Required	E	I	J	S	Ex	<ul style="list-style-type: none">- Network operating systems- Multitasking- Software components- Client software- Server software- TCP/IP utilities- Network services- Network printing- Network applications (e.g., e-mail and messaging, scheduling, groupware)- E-mail standards (e.g., X.400, X.500, SMTP)- Multivendor solutions- Wide-area networks- Bandwidth utilization- Remote access services
		0 1 2 3 4	0 1 2 3 4	X	X	X			
	<u>Developmental Opportunities:</u> Learning: <ul style="list-style-type: none">- Information Resources Management College, Critical Information System Technologies (all)- Courses in telecommunications and electrical engineering (all) Work-based: <ul style="list-style-type: none">- Visit field communications sites (all)- Job rotation (all)- Commercial Certification (all)- National Telecommunications and Information Administration (NTIA) procedures and standards (all)	<u>Gap Assessment:</u> _____ - _____ = _____ Required Proficiency - Current Proficiency = Gap <u>Gap Mitigation Strategy:</u>							

Career Area: Telecommunications**Job Role: Network Operations**

2	Competency: Encryption Tools and Techniques	Proficiency:		Level:					Skill Topics:								
<u>Strategic Value:</u> To integrate encryption into telecommunications networks.	<u>Learning Objectives:</u> Knowledge of and ability to design, support and integrate encryption techniques into telecommunications systems.	Current		Required		E	I	J	S	Ex	<ul style="list-style-type: none">- PKI- Symmetric and asymmetric key standards, products and protocols- Digital signatures- VPNs- Smart Cards- Ipsec- Secure Sockets Layer						
		0	1	2	3	4	0	1	2	3		4	X	X	X	X	
	<u>Developmental Opportunities:</u> Learning: <ul style="list-style-type: none">- Information Resources Management College, Global Enterprise Networking and Telecommunications (all)- Information Resources Management College, Critical Information System Technologies (all)- Courses in telecommunications and electrical engineering (all) Work-based: <ul style="list-style-type: none">- Visit field communications sites (all)- Job rotation (all)- Commercial Certification (all)- National Telecommunications and Information Administration (NTIA) procedures and standards (all)	<u>Gap Assessment:</u> _____ - _____ = _____ Required Proficiency - Current Proficiency = Gap										<u>Gap Mitigation Strategy:</u>					

Career Area: Telecommunications**Job Role: Network Operations**

3	Competency: Data Maintenance	Proficiency:		Level:					Skill Topics:
<u>Strategic Value:</u> To oversee the maintenance and management of data across the enterprise and be responsible for central information planning and control.	<u>Learning Objectives:</u> Knowledge of and ability to develop and maintain a data architecture and provide the basis for the incremental, ordered design and development of systems based on successively more detailed levels of data modeling	Current	Required	E	I	J	S	Ex	- Structured Query Language - Data warehousing - DoD Data Administration Environment (SHADE) - C4ISR Core Architecture Data Model (CADM) - Commercial business practices (e.g., Enterprise Resource Planning)
		0 1 2 3 4	0 1 2 3 4	X	X	X			
	<u>Developmental Opportunities:</u> Learning: - Information Resources Management College, Data Management Strategies and Technologies: A Managerial Perspective (all) - Information Resources Management College, Critical Information System Technologies (all) - Courses in telecommunications and electrical engineering (all) Work-based: - Visit field communications sites (all) - Job rotation (all) - Commercial Certification (all) - National Telecommunications and Information Administration (NTIA) procedures and standards (all)	<u>Gap Assessment:</u> _____ - _____ = _____ Required Proficiency - Current Proficiency = Gap <u>Gap Mitigation Strategy:</u>							

Career Area: Telecommunications**Job Role: Network Operations**

4	Competency: Terrestrial Communications	Proficiency:		Level:					Skill Topics:
<u>Strategic Value:</u> To design and implement communications architectures that utilize terrestrial communications.	<u>Learning Objectives:</u> Knowledge of and ability to plan, design, implement and provide operational support of terrestrial communications networks.	Current	Required	E	I	J	S	Ex	<ul style="list-style-type: none">- Packet switched networks- Communications standards- Encryption- Microwave communications- POTS- Cable, fiberoptic, twisted pair, wireless, laser, infrared and radar media- Operational support- Strategic and tactical military communications- Switched system communications- Life cycle provisioning and support- Subsystem engineering techniques- Switched communications architecture- Navy Working Capital Fund- ILS- Planning, programming and budgeting- Operational configuration management- Operational policy and direction
		0 1 2 3 4	0 1 2 3 4	X	X	X	X		
	<u>Developmental Opportunities:</u> Learning: <ul style="list-style-type: none">- Information Resources Management College, Global Enterprise Networking and Telecommunications (all)- Courses in telecommunications and electrical engineering (all) Work-based: <ul style="list-style-type: none">- Visit field communications sites (all)- Job rotation (all)- Commercial Certification (all)- National Telecommunications and Information Administration (NTIA) procedures and standards (all)	<u>Gap Assessment:</u> _____ - _____ = _____ Required Proficiency - Current Proficiency = Gap							
		<u>Gap Mitigation Strategy:</u>							

Career Area: Telecommunications**Job Role: Network Operations**

5	Competency: Network Administration and Support	Proficiency:		Level:					Skill Topics:
Strategic Value: To design and operate network management systems to support the operation, administration, and maintenance of voice, video, data, imagery and video networks.	<u>Learning Objectives:</u> Knowledge of and ability to apply methods and tools to carry out operational performance monitoring, fault detection and isolation and corrective action on telecommunications systems, networks, circuits and equipment.	Current	Required	E	I	J	S	Ex	<ul style="list-style-type: none">- Network operating systems- Multitasking- Software components- Client software- Server software- TCP/IP utilities- Network services- Network printing- Network applications (e.g., e-mail and messaging, scheduling, groupware)- E-mail standards (e.g., X.400, X.500, SMTP)- Multivendor solutions- Performance Monitoring- Network Management Systems (e.g., Tivoli, HP Open View)- Bandwidth utilization- Segmentation
		0 1 2 3 4	0 1 2 3 4	X	X	X			
	<u>Developmental Opportunities:</u> Learning: <ul style="list-style-type: none">- Information Resources Management College, Critical Information System Technologies (all)- Courses in telecommunications and electrical engineering (all) Work-based: <ul style="list-style-type: none">- Visit field communications sites (all)- Job rotation (all)- Commercial Certification (all)- National Telecommunications and Information Administration (NTIA) procedures and standards (all)	<u>Gap Assessment:</u> _____ - _____ = _____ Required Proficiency - Current Proficiency = Gap <u>Gap Mitigation Strategy:</u>							

Career Area: Telecommunications**Job Role: Network Operations**

6	Competency: Telecommunication System Architecture		Proficiency:		Level:					Skill Topics:
<u>Strategic Value:</u> To implement information transfer/telecommunications requirements into an integrated architecture.	<u>Learning Objectives:</u> Knowledge of and ability to integrate major components of information/telecommunications networks and systems to include an understanding of their functionality, interfaces, associated technology and topology.	Current	Required	E	I	J	S	Ex	<ul style="list-style-type: none">- Telecommunications networks- Mission analysis- Strategic and tactical military communications- Performance planning- Planning, design and functional tradeoffs- Transmission modulation techniques- Operational effectiveness- Acquisition management- Router and multiplexer technology- Network operating systems	
		0 1 2 3 4	0 1 2 3 4	X	X	X	X			
	<u>Developmental Opportunities:</u> Learning: <ul style="list-style-type: none">- Information Resources Management College, Managing Information Architectures and Infrastructures (all)- Information Resources Management College, Critical Information Systems Technologies (all)- Information Resources Management College, Global Enterprise Networking and Telecommunications (all)- Information Resources Management College, The Information Highway (all)- Courses in telecommunications and electrical engineering (all) Work-based: <ul style="list-style-type: none">- Visit field communications sites (all)- Job rotation (all)- Commercial Certification (all)- National Telecommunications and Information Administration (NTIA) procedures and standards (all)	<u>Gap Assessment:</u> _____ - _____ = _____ Required Proficiency - Current Proficiency = Gap <u>Gap Mitigation Strategy:</u>								

Career Area: Telecommunications**Job Role: Network Operations**

7	Competency: Information Assurance	Proficiency:		Level:					Skill Topics:
<u>Strategic Value:</u> To acquire, maintain and ensure the security of information systems in an effective, interoperable, scalable, reliable, integrated and affordable fashion.	<u>Learning Objectives:</u> Knowledge of and ability to apply physical access controls, technical security countermeasures, classification and safeguarding of controlled information and operational & industrial security. Ability to validate that appropriate countermeasures are being integrated correctly into program and to ensure that assurance evidence that demonstrates that the system is secure are produced.	Current	Required	E	I	J	S	Ex	<ul style="list-style-type: none">- Information Systems Security- National Level IM/IT Policy- Trusted Systems- Discretionary and Mandatory Access Control- Identification and Authentication- Common criteria, DITSCAP- Assurance Evidence
	0 1 2 3 4	0 1 2 3 4	X	X	X	X	X	X	
	<u>Developmental Opportunities:</u> Learning: - NETg Technical Training Courses (all) Work-based: - Partnering with Industry (all) - Visit field communications sites (all) - Job rotation (all) - Commercial Certification (all)	<u>Gap Assessment:</u> _____ - _____ = _____ Required Current = Gap Proficiency Proficiency <u>Gap Mitigation Strategy:</u>							

Career Area: Telecommunications**Job Role: Policy**

1	Competency: Policy Development and Implementation	Proficiency:		Level:					Skill Topics:
<u>Strategic Value:</u> To develop staff and assist in the implementation of departmental policy regarding DON, DoD and Federal Government legislative mandates (i.e., Congressional Directives, Executive Orders, and policies relating to information systems communications).	<u>Learning Objectives:</u> Knowledge of and ability to apply telecommunications concepts, principles, practices, procedures, policies, standards and operational requirements both internal and external to the DON (e.g., at the Joint Staff level) necessary to develop or modify telecommunications policy.	Current	Required	E	I	J	S	Ex	- Operational characteristics of communications - Performance characteristics of communications - Information equipment - Telecommunications equipment - Strategic and tactical military communications - Network management - Transmission media - Information transport and switching - Communications-electronic principles - Commercial, Federal and Military standards - Telecommunications regulatory environment - Operational procedures - Operational doctrine - Telecommunications tariffs and pricing structure - C4I issue resolution - Policy directives - Policy development - Military and Civilian Agency communications - Interoperability deficiencies - Migration/integration initiatives - DoD security - Data handling
		0 1 2 3 4	0 1 2 3 4			X	X	X	
	<u>Developmental Opportunities:</u> Learning: - Information Resources Management College, Global Enterprise Networking and Telecommunications (all) - Information Resources Management College, Critical Information System Technologies (all) - Courses in telecommunications and electrical engineering (all) Work-based: - Visit field communications sites (all) - Job rotation (all) - Commercial Certification (all) - National Telecommunications and Information Administration (NTIA) procedures and standards (all)	<u>Gap Assessment:</u> _____ - _____ = _____ Required Proficiency - Current Proficiency = Gap <u>Gap Mitigation Strategy:</u>							

Career Area: Telecommunications**Job Role: Policy**

2	Competency: Policy Assessment	Proficiency:					Level:					Skill Topics:					
<u>Strategic Value:</u> To assess and accommodate military and civilian agency communications requirements and the ability to assess interoperability deficiencies in the implementation of mitigation/integration initiatives for information systems.	<u>Learning Objectives:</u> Knowledge of and ability to analyze, plan, schedule, coordinate and develop legislation or telecommunications policy issuances that direct the course of telecommunications programs across organizational lines within Federal agencies or other organizations involved in providing telecommunications and services for the Federal Government.	Current					Required					E	I	J	S	Ex	- Telecommunications equipment - Military and Civilian Agency communications - Interoperability deficiencies - Migration - Operational procedures - Operational doctrine - DoD security - Data handling - Information systems networks - Policy directives
		0	1	2	3	4	0	1	2	3	4			X	X	X	
	<u>Developmental Opportunities:</u> Learning: - Information Resources Management College, Global Enterprise Networking and Telecommunications (all) - Information Resources Management College, Critical Information System Technologies (all) - Courses in telecommunications and electrical engineering (all) Work-based: - Visit field communications sites (all) - Job rotation (all) - Commercial Certification (all) - National Telecommunications and Information Administration (NTIA) procedures and standards (all)	<u>Gap Assessment:</u> _____ - _____ = _____ Required - Current = Gap Proficiency Proficiency <u>Gap Mitigation Strategy:</u>															

Career Area: Telecommunications**Job Role: Policy**

3	Competency: Telecommunication System Architecture		Proficiency:		Level:					Skill Topics:							
<u>Strategic Value:</u> To implement information transfer/telecommunications requirements into an integrated architecture.	<u>Learning Objectives:</u> Knowledge of and ability to integrate major components of information/telecommunications networks and systems to include an understanding of their functionality, interfaces, associated technology and topology.	Current	Required				E	I	J	S	Ex	<ul style="list-style-type: none">- Telecommunications networks- Mission analysis- Strategic and tactical military communications- Performance planning- Planning, design and functional tradeoffs- Transmission modulation techniques- Operational effectiveness- Acquisition management- Router and multiplexer technology- Network operating systems					
		0	1	2	3	4	0	1	2	3	4		X	X	X	X	
	<u>Developmental Opportunities:</u> Learning: <ul style="list-style-type: none">- Information Resources Management College, Managing Information Architectures and Infrastructures (all)- Information Resources Management College, Critical Information Systems Technologies (all)- Information Resources Management College, Global Enterprise Networking and Telecommunications (all)- Information Resources Management College, The Information Highway (all)- Courses in telecommunications and electrical engineering (all) Work-based: <ul style="list-style-type: none">- Visit field communications sites (all)- Job rotation (all)- Commercial Certification (all)- National Telecommunications and Information Administration (NTIA) procedures and standards (all)	<u>Gap Assessment:</u> _____ - _____ = _____ Required Proficiency - Current Proficiency = Gap <u>Gap Mitigation Strategy:</u>															

Career Area: Telecommunications**Job Role: Policy**

4	Competency: Program Management	Proficiency:					Level:					Skill Topics:					
<u>Strategic Value:</u> <i>To achieve the needed outcomes of a specific program and related projects by ensuring proper management, performance and administration.</i>	<u>Learning Objectives:</u> Knowledge of the required outcomes, functional and political environments, organizations, activities, and constraints affecting a program. Knowledge of project definition and the ability to: relate required results and costs; lead teams that include members not in one's chain of command; apply systematic thinking to develop action plans; develop approaches to satisfy requirements and resolve issues; and ensure overall project quality. A PM has the knowledge and ability to coordinate the work of assigned staff and other functional experts matrixed to support the task.	Current					Required					E	I	J	S	Ex	<ul style="list-style-type: none">- Program strategic planning- Program role in organization/enterprise- Visionary leadership- Performance assessment- Project integration management- Quality management- Risk management- Financial management
		0	1	2	3	4	0	1	2	3	4				X	X	
	<u>Developmental Opportunities:</u> Learning: <ul style="list-style-type: none">- Information Resources Management College: (J, S)--Information Management Planning--Information Technology Acquisition for the CIO--IT Project Management- STAR Program (all)- DAWIA (all) Work-based: <ul style="list-style-type: none">- Serve as Contracting Officer's Representative (J, S)- Serve as project engineer or project manager (J)	<u>Gap Assessment:</u> _____ - _____ = _____ Required Proficiency - Current Proficiency = Gap <u>Gap Mitigation Strategy:</u>															

Career Area: Telecommunications**Job Role: Policy**

5	<u>Competency:</u> Contracting Officers Representative (COR)		<u>Proficiency:</u>		<u>Level:</u>					<u>Skill Topics:</u>
			Current	Required	E	I	J	S	Ex	
<u>Strategic Value:</u> <i>To ensure contractor performance and delivery is in compliance with a given contract.</i>	<u>Learning Objectives:</u> Knowledge of and ability to make technical decisions within the scope of the contract/task; serve as the day-to-day point of contact for contractual matters; assess the technical quality of performed work; approve deliverables for acceptance.	0 1 2 3 4	0 1 2 3 4		X	X	X			- Deliverable item review and approval - Contract types (e.g., IDIQ, cost reimbursable, time and materials, firm fixed price) - Cost reporting - Contract rates - Delivery orders - Other direct costs (ODCs) - Contract Line Items (CLINs) - Contract milestones - Life cycle management - Statements of Work (SOW) - Contract options
	<u>Developmental Opportunities:</u> Learning: - STAR Program (all) - DAWIA (all)	<u>Gap Assessment:</u> <div style="text-align: center;"> _____ - _____ = _____ Required Proficiency - Current Proficiency = Gap </div>					<u>Gap Mitigation Strategy:</u>			

Career Area: Telecommunications**Job Role: Policy**

6	Competency: Information Assurance	Proficiency:		Level:					Skill Topics:
<u>Strategic Value:</u> To acquire, maintain and ensure the security of information systems in an effective, interoperable, scalable, reliable, integrated and affordable fashion.	<u>Learning Objectives:</u> Knowledge of and ability to apply physical access controls, technical security countermeasures, classification and safeguarding of controlled information and operational & industrial security. Ability to validate that appropriate countermeasures are being integrated correctly into program and to ensure that assurance evidence that demonstrates that the system is secure are produced.	Current	Required	E	I	J	S	Ex	- Information Systems Security - National Level IM/IT Policy - Trusted Systems - Discretionary and Mandatory Access Control - Identification and Authentication - Common criteria, DITSCAP - Assurance Evidence
		0 1 2 3 4	0 1 2 3 4	X	X	X	X	X	
	<u>Developmental Opportunities:</u> Learning: - NETg Technical Training Courses (all) Work-based: - Partnering with Industry (all) - Visit field communications sites (all) - Job rotation (all) - Commercial Certification (all)	<u>Gap Assessment:</u> _____ - _____ = _____ Required Proficiency - Current Proficiency = Gap <u>Gap Mitigation Strategy:</u>							

Career Area: Telecommunications**Job Role: Project Management**

1	Competency: Asset Management	Proficiency:		Level:					Skill Topics:
<u>Strategic Value:</u> To manage the inventory of DON and organization telecommunications technology assets for DON programs and operations.	<u>Learning Objectives:</u> Knowledge of and ability to apply methods and procedures to identify, purchase, distribute, and maintain telecommunications technology assets.	Current	Required	E	I	J	S	Ex	<ul style="list-style-type: none">- Asset management- State-of-the-art planning strategies- Telecommunication technology- Strategic and tactical military communications- Telecommunication resource utilization- Acquisition packages
		0 1 2 3 4	0 1 2 3 4	X	X	X			
	<u>Developmental Opportunities:</u> Learning: <ul style="list-style-type: none">- Information Resources Management College, Global Enterprise Networking and Telecommunications (all)- Courses in telecommunications and electrical engineering (all) Work-based: <ul style="list-style-type: none">- Visit field communications sites (all)- Job rotation (all)- Commercial Certification (all)- National Telecommunications and Information Administration (NTIA) procedures and standards (all)	<u>Gap Assessment:</u> _____ - _____ = _____ Required Proficiency - Current Proficiency = Gap <u>Gap Mitigation Strategy:</u>							

Career Area: Telecommunications**Job Role: Project Management**

2	Competency: Life Cycle Management	Proficiency:					Level:					Skill Topics:					
<u>Strategic Value:</u> To advise on communication system engineering design, planning and modeling.	<u>Learning Objectives:</u> Knowledge of and ability to define the network environment, mission needs, requirements and operational objectives.	Current					Required					E	I	J	S	Ex	<ul style="list-style-type: none">- System management- Communication system development and concepts- Strategic and tactical military communications- Functional requirements definitions- Digital communications- Analog communications- Frequency management- Communications security requirements- Operational doctrine- Organizational factors- Man-machine interfaces- DoD practices and procedures
		0	1	2	3	4	0	1	2	3	4	X	X	X	X		
	<u>Developmental Opportunities:</u> Learning: <ul style="list-style-type: none">- Information Resources Management College, Global Enterprise Networking and Telecommunications (all)- Courses in telecommunications and electrical engineering (all) Work-based: <ul style="list-style-type: none">- Visit field communications sites (all)- Job rotation (all)- Commercial Certification (all)- National Telecommunications and Information Administration (NTIA) procedures and standards (all)	<u>Gap Assessment:</u> _____ - _____ = _____ Required Proficiency - Current Proficiency = Gap <u>Gap Mitigation Strategy:</u>															

Career Area: Telecommunications**Job Role: Project Management**

3	Competency: Telecommunication System Architecture	Proficiency:		Level:					Skill Topics:
<u>Strategic Value:</u> To implement information transfer/telecommunications requirements into an integrated architecture.	<u>Learning Objectives:</u> Knowledge of and ability to integrate major components of information/telecommunications networks and systems to include an understanding of their functionality, interfaces, associated technology and topology.	Current	Required	E	I	J	S	Ex	<ul style="list-style-type: none">- Telecommunications networks- Mission analysis- Strategic and tactical military communications- Performance planning- Design and functional tradeoffs- Transmission modulation techniques- Operational effectiveness- Acquisition management- Router and multiplexer technology- Proposal evaluation
		0 1 2 3 4	0 1 2 3 4	X	X	X	X		
	<u>Developmental Opportunities:</u> Learning: <ul style="list-style-type: none">- Information Resources Management College, Managing Information Architectures and Infrastructures (all)- Information Resources Management College, Critical Information Systems Technologies (all)- Information Resources Management College, Global Enterprise Networking and Telecommunications (all)- Information Resources Management College, The Information Highway (all)- Courses in telecommunications and electrical engineering (all) Work-based: <ul style="list-style-type: none">- Visit field communications sites (all)- Job rotation (all)- Commercial Certification (all)- National Telecommunications and Information Administration (NTIA) procedures and standards (all)	<u>Gap Assessment:</u> _____ - _____ = _____ Required Proficiency - Current Proficiency = Gap <u>Gap Mitigation Strategy:</u>							

Career Area: Telecommunications**Job Role: Project Management**

4	Competency: Configuration Management	Proficiency:					Level:					Skill Topics:					
<u>Strategic Value:</u> To provide positive control of system configuration to ensure system interoperability.	<u>Learning Objectives:</u> Knowledge of and ability to provide technical and administrative direction and surveillance to formally document and control the functional and physical characteristics of a system, network or product, including its requirements, design, software, hardware, documentation and release during the system's life cycle.	Current					Required					E	I	J	S	Ex	- Configuration management and control methods and procedures - Change management process - Development management - Implementation management - Telecommunications systems - Strategic and tactical military communications - Mission support software - Operational concepts
		0	1	2	3	4	0	1	2	3	4	X	X	X	X		
	<u>Developmental Opportunities:</u> Learning: - Information Resources Management College, Global Enterprise Networking and Telecommunications (all) - Information Resources Management College, Critical Information System Technologies (all) - Courses in telecommunications and electrical engineering (all) - Attend formal CM training (E, I) - Attend CM conferences (I, J, S) Work-based: - Visit field communications sites (all) - Job rotation (all) - Commercial Certification (all) - National Telecommunications and Information Administration (NTIA) procedures and standards (all) - Participate in writing of CM plan (I, J) - Participate in a CM audit (I, J) - Serve on a configuration control board (I, J) - Attend a CCB meeting (E)	<u>Gap Assessment:</u> _____ - _____ = _____ Required Proficiency - Current Proficiency = Gap <u>Gap Mitigation Strategy:</u>															

Career Area: Telecommunications**Job Role: Project Management**

5	Competency: Network Design	Proficiency:					Level:					Skill Topics:					
<u>Strategic Value:</u> To conduct capacity planning for future telecommunications systems and assist customers in network planning, design, modification, and other functions including migration strategy development.	<u>Learning Objectives:</u> Knowledge of and ability to evolve communications networks to achieve greater capacity, improved service and more cost effective operations.	Current					Required					E	I	J	S	Ex	- Network design - Communication networks - Capacity planning - Strategic and tactical military communications - Provisioning strategy development - Trunk and circuit allocation and engineering - Migration strategy development - Modeling - Communications-electronic principles
		0	1	2	3	4	0	1	2	3	4	X	X	X	X		
	<u>Developmental Opportunities:</u> Learning: - Information Resources Management College, Global Enterprise Networking and Telecommunications (all) - Information Resources Management College, Critical Information System Technologies (all) - Courses in telecommunications and electrical engineering (all) Work-based: - Visit field communications sites (all) - Job rotation (all) - Commercial Certification (all) - National Telecommunications and Information Administration (NTIA) procedures and standards (all)	<u>Gap Assessment:</u> _____ - _____ = _____ Required Proficiency - Current Proficiency = Gap <u>Gap Mitigation Strategy:</u>															

Career Area: Telecommunications**Job Role: Project Management**

6	Competency: Program Management	Proficiency:	Level:	Skill Topics:
<u>Strategic Value:</u> <i>To achieve the needed outcomes of a specific program and related projects by ensuring proper management, performance and administration.</i>	<u>Learning Objectives:</u> Knowledge of the required outcomes, functional and political environments, organizations, activities, and constraints affecting a program. Knowledge of project definition and the ability to: relate required results and costs; lead teams that include members not in one's chain of command; apply systematic thinking to develop action plans; develop approaches to satisfy requirements and resolve issues; and ensure overall project quality. A PM has the knowledge and ability to coordinate the work of assigned staff and other functional experts matrixed to support the task.	Current 0 1 2 3 4	Required 0 1 2 3 4	E I J S Ex X X X
	<u>Developmental Opportunities:</u> Learning: - Information Resources Management College: (J, S) --Information Management Planning --Information Technology Acquisition for the CIO --IT Project Management - STAR Program (all) - DAWIA (all) Work-based: - Serve as Contracting Officer's Representative (J, S) - Serve as project engineer or project manager (J)		<u>Gap Assessment:</u> _____ - _____ = _____ Required - Current = Gap Proficiency Proficiency	<u>Gap Mitigation Strategy:</u> - Program strategic planning - Program role in organization/enterprise - Visionary leadership - Performance assessment - Project integration management - Quality management - Risk management - Financial management

Career Area: Telecommunications**Job Role: Project Management**

7	Competency: Contracting Officers Representative (COR)		Proficiency:		Level:					Skill Topics:
			Current	Required	E	I	J	S	Ex	
<u>Strategic Value:</u> <i>To ensure contractor performance and delivery is in compliance with a given contract.</i>	<u>Learning Objectives:</u> Knowledge of and ability to make technical decisions within the scope of the contract/task; serve as the day-to-day point of contact for contractual matters; assess the technical quality of performed work; approve deliverables for acceptance.		0 1 2 3 4	0 1 2 3 4		X	X	X		- Deliverable item review and approval - Contract types (e.g., IDIQ, cost reimbursable, time and materials, firm fixed price) - Cost reporting - Contract rates - Delivery orders - Other direct costs (ODCs) - Contract Line Items (CLINs) - Contract milestones - Life cycle management - Statements of Work (SOW) - Contract options
	<u>Developmental Opportunities:</u> Learning: - STAR Program (all) - DAWIA (all)	<u>Gap Assessment:</u> <div style="display: flex; justify-content: space-between; align-items: center;"> <div>_____</div> <div>-</div> <div>_____</div> <div>=</div> <div>_____</div> </div> <div style="display: flex; justify-content: space-between; align-items: center; margin-top: 10px;"> <div>Required Proficiency</div> <div>-</div> <div>Current Proficiency</div> <div>=</div> <div>Gap</div> </div> <u>Gap Mitigation Strategy:</u>								

Career Area: Telecommunications**Job Role: Project Management**

8	Competency: Information Assurance		Proficiency:		Level:					Skill Topics:
			Current	Required	E	I	J	S	Ex	
Strategic Value: <i>To acquire, maintain and ensure the security of information systems in an effective, interoperable, scalable, reliable, integrated and affordable fashion.</i>	Learning Objectives: Knowledge of and ability to apply physical access controls, technical security countermeasures, classification and safeguarding of controlled information and operational & industrial security. Ability to validate that appropriate countermeasures are being integrated correctly into program and to ensure that assurance evidence that demonstrates that the system is secure are produced.	0 1 2 3 4 0 1 2 3 4	X	X	X	X	X		- Information Systems Security - National Level IM/IT Policy - Trusted Systems - Discretionary and Mandatory Access Control - Identification and Authentication - Common criteria, DITSCAP - Assurance Evidence	
	Developmental Opportunities: Learning: - NETg Technical Training Courses (all) Work-based: - Partnering with Industry (all) - Visit field communications sites (all) - Job rotation (all) - Commercial Certification (all)	Gap Assessment: <div style="text-align: center;"> _____ - _____ = _____ Required Current Proficiency Proficiency Gap </div> Gap Mitigation Strategy:								

Career Area: Telecommunications**Job Role: Research and Development**

1	Competency: Basic Research	Proficiency:		Level:					Skill Topics:
		Current	Required	E	I	J	S	Ex	
<u>Strategic Value:</u> To conduct basic research to support future DON information and telecommunications systems.	<u>Learning Objectives:</u> Knowledge of and ability to conduct cutting edge research and apply it to future DON needs.	0 1 2 3 4	0 1 2 3 4				X	X	- Publications and technical writing - Literature searches - Cooperative Research and Development Agreements (CRADAs) - Technical speech and presentation - Proposal development
	<u>Developmental Opportunities:</u> Learning: - Information Resources Management College, Global Enterprise Networking and Telecommunications (all) - Information Resources Management College, Critical Information System Technologies (all) - Courses in telecommunications and electrical engineering (all) - Classes for background as needed for new research topics (all) Work-based: - Visit field communications sites (all) - Job rotation (all) - Commercial Certification (all) - Conferences, workshops, presenting papers (all) - Professional study, journals (all) - Professional association membership (all) - Program Chair / Committees (all) - Dissertation committees (all) - Organizational trends (S, Ex) - Evaluating proposals (S, Ex)	<u>Gap Assessment:</u> _____ - _____ = _____ Required Proficiency - Current Proficiency = Gap <u>Gap Mitigation Strategy:</u>							

Career Area: Telecommunications**Job Role: Research and Development**

2	Competency: Applied Research	Proficiency:		Level:					Skill Topics:
		Current	Required	E	I	J	S	Ex	
Strategic Value: <i>To apply basic research in support of future DON information and telecommunications systems.</i>	Learning Objectives: Knowledge of and ability to conduct and apply cutting edge research and apply it to future DON needs.	0 1 2 3 4	0 1 2 3 4				X	X	- Requirements analysis - Customer functional and infrastructure analysis - Customer information management - Customer requirements - Converting research into prototype systems - Transitioning from prototype systems to engineering development models - Test & Evaluation - Product design - Systems integration - CRADAs - Liaison with universities, industry
	Developmental Opportunities: Learning: - Information Resources Management College, Global Enterprise Networking and Telecommunications (all) - Information Resources Management College, Critical Information System Technologies (all) - Courses in telecommunications and electrical engineering (all) Work-based: - Visit field communications sites (all) - Job rotation (all) - Commercial Certification (all) - Conferences, workshops, presenting papers (all) - Professional study, journals (all) - Professional association membership (all) - Program Chair / Committees (all) - Dissertation committees (all) - Organizational trends (S, Ex) - Evaluating proposals (S, Ex) - National Telecommunications and Information Administration (NTIA) procedures and standards (all)	Gap Assessment: <div style="text-align: center;"> _____ - _____ = _____ Required Proficiency - Current Proficiency = Gap </div> Gap Mitigation Strategy:							

Career Area: Telecommunications**Job Role: Research and Development**

3	Competency: Advanced Concept Technology Demonstration	Proficiency:		Level:					Skill Topics:
<u>Strategic Value:</u> To develop prototypes of advanced technology for use in future DON information and telecommunications systems.	<u>Learning Objectives:</u> Knowledge of and ability to apply cutting edge research into advanced concept technology demonstrations.	Current	Required	E	I	J	S	Ex	- Demonstrations and validation - Customer requirements and support - Training - Graphical User Interface improvement - Incremental development - System integration and management - Proposal development
		0 1 2 3 4	0 1 2 3 4				X	X	
	<u>Developmental Opportunities:</u> Learning: - Information Resources Management College, Global Enterprise Networking and Telecommunications (all) - Information Resources Management College, Critical Information System Technologies (all) - Courses in telecommunications and electrical engineering (all) Work-based: - Visit field communications sites (all) - Job rotation (all) - Commercial Certification (all) - Conferences, workshops, presenting papers (all) - Professional study, journals (all) - Professional association membership (all) - Program Chair / Committees (all) - Dissertation committees (all) - Organizational trends (S, Ex) - Evaluating proposals (S, Ex) - National Telecommunications and Information Administration (NTIA) procedures and standards (all)	<u>Gap Assessment:</u> _____ - _____ = _____ Required Proficiency - Current Proficiency = Gap <u>Gap Mitigation Strategy:</u>							

Career Area: Telecommunications**Job Role: Research and Development**

4	Competency: Telecommunication System Architecture		Proficiency:		Level:					Skill Topics:					
<u>Strategic Value:</u> To implement information transfer/telecommunications requirements into an integrated architecture.	<u>Learning Objectives:</u> Knowledge of and ability to integrate major components of information/telecommunications networks and systems to include an understanding of their functionality, interfaces, associated technology and topology.	Current	Required				E	I	J	S	Ex	- Telecommunications networks - Mission analysis - Strategic and tactical military communications - Performance planning - Design and functional tradeoffs - Transmission modulation techniques - Operational effectiveness - Acquisition management - Router and multiplexer technology - Proposal evaluation			
		0	1	2	3	4	0	1	2	3	4		X	X	X
	<u>Developmental Opportunities:</u> Learning: - Information Resources Management College, Managing Information Architectures and Infrastructures (all) - Information Resources Management College, Critical Information Systems Technologies (all) - Information Resources Management College, Global Enterprise Networking and Telecommunications (all) - Information Resources Management College, The Information Highway (all) - Courses in telecommunications and electrical engineering (all) Work-based: - Visit field communications sites (all) - Job rotation (all) - Commercial Certification (all) - National Telecommunications and Information Administration (NTIA) procedures and standards (all)	<u>Gap Assessment:</u> _____ - _____ = _____ Required Proficiency - Current Proficiency = Gap <u>Gap Mitigation Strategy:</u>													

Career Area: Telecommunications**Job Role: Research and Development**

5	Competency: Requirements Analysis	Proficiency:		Level:					Skill Topics:
<u>Strategic Value:</u> To ensure stakeholder (e.g. customers, end-users) requirements are incorporated in the systems engineering of information systems.	<u>Learning Objectives:</u> Knowledge of and ability to analyze, identify, specify and manage functional and infrastructure requirements needed to achieve customer, organization and DON goals.	Current	Required	E	I	J	S	Ex	- Requirements analysis - Customer functional and infrastructure analysis - Customer information management - Customer requirements - DoD, DON mission, organization and roles
		0 1 2 3 4	0 1 2 3 4	X	X	X	X		
	<u>Developmental Opportunities:</u> Learning: - Information Resources Management College, Global Enterprise Networking and Telecommunications (all) - Courses in telecommunications and electrical engineering (all) - Attend course on Requirements Specification (E, I) Work-based: - Visit field communications sites (all) - Job rotation (all) - Commercial Certification (all) - National Telecommunications and Information Administration (NTIA) procedures and standards (all) - Work on specification writing team (E, I, J)	<u>Gap Assessment:</u> _____ - _____ = _____ Required Current = Gap Proficiency Proficiency <u>Gap Mitigation Strategy:</u>							

Career Area: Telecommunications**Job Role: Research and Development**

6	Competency: Modeling and Simulation	Proficiency:		Level:					Skill Topics:
<u>Strategic Value:</u> To evaluate and assess evolving information and telecommunications systems and to ensure greater efficiency, improved service, and cost effective operations.	<u>Learning Objectives:</u> Knowledge of and ability to apply modeling and simulation tools and techniques to characterize systems of interest, to support decisions involving requirements, to evaluate design alternatives, to support training, or to support operational preparations.	Current	Required	E	I	J	S	Ex	<ul style="list-style-type: none">- Analytic modeling (includes methods and tools)- Time-step simulation- Event-step simulation- Trace capture/playback- Remote terminal emulation- Database sampling- Test data generators- Protocols for federated models (e.g., DIS, ALSP, HLA)- Simulation-based design
		0 1 2 3 4	0 1 2 3 4	X	X	X	X		
	<u>Developmental Opportunities:</u> Learning: <ul style="list-style-type: none">- Information Resources Management College, Global Enterprise Networking and Telecommunications (all)- Information Resources Management College, Critical Information System Technologies (all)- Courses in telecommunications and electrical engineering (all)- Attend M&S conferences (I, J) Work-based: <ul style="list-style-type: none">- Visit field communications sites (all)- Job rotation (all)- Commercial Certification (all)- National Telecommunications and Information Administration (NTIA) procedures and standards (all)- Visiting other DoD/civilian sites to learn about modeling and simulation (all)	<u>Gap Assessment:</u> _____ - _____ = _____ Required Proficiency - Current Proficiency = Gap <u>Gap Mitigation Strategy:</u>							

Career Area: Telecommunications**Job Role: Research and Development**

7	Competency: Developmental Test & Evaluation (DT&E)	Proficiency:		Level:					Skill Topics:
<u>Strategic Value:</u> To promote the development and acceptance of information and telecommunications systems to meet stakeholder requirements; to promote compliance with standards; to promote interoperability of standards compliant products in support of DON acquisition.	<u>Learning Objectives:</u> Knowledge of and ability to analyze the technical characteristics, identify critical technical issues and design, implement, execute and report results.	Current	Required	E	I	J	S	Ex	- DT&E - Requirements and developmental analysis - Test coverage performance metrics - Quality assurance - Performance assurance - Product assurance - Standards conformance testing - Interoperability certification - Security testing - IV&V
		0 1 2 3 4	0 1 2 3 4	X	X	X	X		
	<u>Developmental Opportunities:</u> Learning: - Information Resources Management College, Global Enterprise Networking and Telecommunications (all) - Information Resources Management College, Critical Information System Technologies (all) - Courses in telecommunications and electrical engineering (all) - Attend testing conferences, such as ITEA conference (I, J) - Attend courses on test design (E, I) Work-based: - Visit field communications sites (all) - Job rotation (all) - Commercial Certification (all) - National Telecommunications and Information Administration (NTIA) procedures and standards (all)	<u>Gap Assessment:</u> _____ - _____ = _____ Required Proficiency - Current Proficiency = Gap <u>Gap Mitigation Strategy:</u>							

Career Area: Telecommunications**Job Role: Research and Development**

8	Competency: Integrated Verification & Validation (IV&V)	Proficiency:					Level:					Skill Topics:					
<u>Strategic Value:</u> To determine which system characteristics can be verified by analysis or simulation and which must be verified by demonstration and testing; to assess the progress being made in development and migration efforts prior to validation (including IV&V).	<u>Learning Objectives:</u> Knowledge of and ability to provide formal verification and validation of required system performance characteristics.	Current					Required					E	I	J	S	Ex	<ul style="list-style-type: none">- IV&V processes- Formal test and evaluation- Continuous comprehensive evaluation- Data collection and analysis- Computer products and services analysis- Telecom performance inspection
		0	1	2	3	4	0	1	2	3	4	X	X	X	X		
	<u>Developmental Opportunities:</u> Learning: <ul style="list-style-type: none">- Information Resources Management College, Global Enterprise Networking and Telecommunications (all)- Information Resources Management College, Critical Information System Technologies (all)- Courses in telecommunications and electrical engineering (all) Work-based: <ul style="list-style-type: none">- Visit field communications sites (all)- Job rotation (all)- Commercial Certification (all)- National Telecommunications and Information Administration (NTIA) procedures and standards (all)	<u>Gap Assessment:</u> _____ - _____ = _____ Required Proficiency - Current Proficiency = Gap <u>Gap Mitigation Strategy:</u>															

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9	Competency: Program Management	Proficiency:					Level:					Skill Topics:						
<u>Strategic Value:</u> <i>To achieve the needed outcomes of a specific program and related projects by ensuring proper management, performance and administration.</i>	<u>Learning Objectives:</u> Knowledge of the required outcomes, functional and political environments, organizations, activities, and constraints affecting a program. Knowledge of project definition and the ability to: relate required results and costs; lead teams that include members not in one's chain of command; apply systematic thinking to develop action plans; develop approaches to satisfy requirements and resolve issues; and ensure overall project quality. A PM has the knowledge and ability to coordinate the work of assigned staff and other functional experts matrixed to support the task.	Current					Required					E	I	J	S	Ex	<ul style="list-style-type: none">- Program strategic planning- Program role in organization/enterprise- Visionary leadership- Performance assessment- Project integration management- Quality management- Risk management- Financial management	
		0	1	2	3	4	0	1	2	3	4				X	X		X
	<u>Developmental Opportunities:</u> Learning: <ul style="list-style-type: none">- Information Resources Management College: (J, S)--Information Management Planning--Information Technology Acquisition for the CIO--IT Project Management- STAR Program (all)- DAWIA (all) Work-based: <ul style="list-style-type: none">- Serve as Contracting Officer's Representative (J, S)- Serve as project engineer or project manager (J)	<u>Gap Assessment:</u> _____ - _____ = _____ Required Proficiency - Current Proficiency = Gap															<u>Gap Mitigation Strategy:</u>	

Career Area: Telecommunications**Job Role: Research and Development**

10	Competency: Contracting Officers Representative (COR)		Proficiency:		Level:					Skill Topics:	
			Current	Required	E	I	J	S	Ex		
<u>Strategic Value:</u> <i>To ensure contractor performance and delivery is in compliance with a given contract.</i>			<u>Learning Objectives:</u> Knowledge of and ability to make technical decisions within the scope of the contract/task; serve as the day-to-day point of contact for contractual matters; assess the technical quality of performed work; approve deliverables for acceptance.		0 1 2 3 4	0 1 2 3 4		X	X	X	
<u>Developmental Opportunities:</u> Learning: - STAR Program (all) - DAWIA (all)			<u>Gap Assessment:</u> _____ - _____ = _____ Required Proficiency - Current Proficiency = Gap <u>Gap Mitigation Strategy:</u>								- Deliverable item review and approval - Contract types (e.g., IDIQ, cost reimbursable, time and materials, firm fixed price) - Cost reporting - Contract rates - Delivery orders - Other direct costs (ODCs) - Contract Line Items (CLINs) - Contract milestones - Life cycle management - Statements of Work (SOW) - Contract options

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11	Competency: Information Assurance	Proficiency:		Level:					Skill Topics:
<u>Strategic Value:</u> To acquire, maintain and ensure the security of information systems in an effective, interoperable, scalable, reliable, integrated and affordable fashion.	<u>Learning Objectives:</u> Knowledge of and ability to apply physical access controls, technical security countermeasures, classification and safeguarding of controlled information and operational & industrial security. Ability to validate that appropriate countermeasures are being integrated correctly into program and to ensure that assurance evidence that demonstrates that the system is secure are produced.	Current	Required	E	I	J	S	Ex	<ul style="list-style-type: none">- Information Systems Security- National Level IM/IT Policy- Trusted Systems- Discretionary and Mandatory Access Control- Identification and Authentication- Common criteria, DITSCAP- Assurance Evidence
	0 1 2 3 4	0 1 2 3 4	X	X	X	X	X		
	<u>Developmental Opportunities:</u> Learning: - NETg Technical Training Courses (all) Work-based: - Partnering with Industry (all) - Visit field communications sites (all) - Job rotation (all) - Commercial Certification (all)	<u>Gap Assessment:</u> _____ - _____ = _____ Required Proficiency - Current Proficiency = Gap <u>Gap Mitigation Strategy:</u>							